



# STIC Search Report

## STIC Database Tracking Number 108848

**TO: Cuong H Nguyen** 

Location:

Art Unit: 3625 cpk 5 7Y09

Monday, November 24, 2003

From: Sylvia Keys Location: EIC 3600

PK5-Suite 804 Phone: 305-5782

sylvia.keys@uspto.gov

## Search Notes

Dear Cuong,

Please read through the results.

Y

If you have any questions, please do not hesitate to contact me.

Sylvia



```
File 256:SoftBase:Reviews, Companies&Prods. 82-2003/Oct
          (c) 2003 Info. Sources Inc
       2:INSPEC 1969-2003/Nov W3
File
          (c) 2003 Institution of Electrical Engineers
      35:Dissertation Abs Online 1861-2003/Oct
File
          (c) 2003 ProQuest Info&Learning
      65:Inside Conferences 1993-2003/Nov W4
File
          (c) 2003 BLDSC all rts. reserv.
      99: Wilson Appl. Sci & Tech Abs 1983-2003/Oct
File
          (c) 2003 The HW Wilson Co.
File 233:Internet & Personal Comp. Abs. 1981-2003/Jul
         (c) 2003, EBSCO Pub.
File 583: Gale Group Globalbase (TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
File 474:New York Times Abs 1969-2003/Nov 22
         (c) 2003 The New York Times
File 475: Wall Street Journal Abs 1973-2003/Nov 21
         (c) 2003 The New York Times
       8:Ei Compendex(R) 1970-2003/Nov W3
File
         (c) 2003 Elsevier Eng. Info. Inc.
File
      94:JICST-EPlus 1985-2003/Nov W4
         (c) 2003 Japan Science and Tech Corp(JST)
       6:NTIS 1964-2003/Nov W4
File
         (c) 2003 NTIS, Intl Cpyrght All Rights Res
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
      34:SciSearch(R) Cited Ref Sci 1990-2003/Nov W3
         (c) 2003 Inst for Sci Info
?ds
Set
        Items
                Description
S1
         3170
                 (AUTHORIZ? OR AUTHORIS? OR VALID? OR VERIF? OR APPROV?) (5N-
             ) (TRANSACTION? OR PAYMENT?)
S2
                CELLPHONE? OR CELL?() PHONE OR PORTABLE() DEVICE? OR PEAD OR
             PORTABLE()ELECTRONIC()AUTHORIZATION()DEVICE? OR PDA OR FONE? -
             OR PDAS OR PERSONAL()DIGITAL()ASSISTANT?
                PIN? ? OR (CHARGE OR CREDIT) () CARD? OR NUMBER? ? OR PASSWO-
S3
             RD? OR ID OR IDENTIFICATION? OR PERSONAL()IDENTIFICATION()NUM-
             BER?
        27086
                AU = (WANG, Y? OR WANG Y?)
S4
                S1 AND S2
S5
            8
                S5 NOT PY>1999
S6
            3
S7
                RD (unique items)
                S2 AND S3
         3155
S8
                S8 AND S1
S9
            2
S10
            2
                S9 NOT S7
S11
            2
                RD (unique items)
S12
            3
                S4 AND S1
?
```

DIALOG(R) File 2: INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

INSPEC Abstract Number: D87000873 02828002

Title: Spencer Gifts takes credit a step farther (retail technology)

Journal: Chain Store Age Executive vol.63, no.2 p.57 Publication Date: Reb. 1987 Country of Publication: USA

CODEN: COMLEF ISSN: 0193-1199

Document Type: Journal Paper (JP) Language: English

Treatment: General, Review (G); Practical (P)

Treatment: General, Review (G); Practical (P)
Abstract: Spencer Gifts, the Pleasantville, NJ-based retailer, has taken the first step into the future of credit authorization by subscribing to Telecard, a credit authorization service of Telenet. While the chain is currently an authorization-only subscriber, it is only a matter of time before electronic data capture is added to Spencer's transaction processing. The system is installed in 167 locations which utilize Micro-Fone II credit authorization terminals accessing the Telenet data network. The network forwards the consumer account and purchasing information to either Telenet's host computer, a Tandem TXP system, or an intermediary service. These, in turn, forward the information to the appropriate authorization data base. If the transaction is authorized, an approval code is transmitted back over the same network to the Micro-Fone terminal. (O Refs) Micro- Fone terminal. (0 Refs)

Subfile: D

Descriptors: computer networks; credit transactions; retail data

processing

Identifiers: retail technology; Spencer Gifts; credit authorization; Telecard; electronic data capture; transaction processing; Micro- Fone II; Telenet data network; approval code

Class Codes: D2050B (Accounting); D2140 (Marketing, retailing and distribution); D5020 (Networks and inter-computer communications)

7/5/2 (Item 1 from file: 99)

DIALOG(R) File 99: Wilson Appl. Sci & Tech Abs (c) 2003 The HW Wilson Co. All rts. reserv.

1921741 H.W. WILSON RECORD NUMBER: BAST99043182

Digital pad collects autographs

AUGMENTED TITLE: from Interlink Electronies Inc. IEEE Spectrum v. 36 no6 (June 1999) p. 102-3

DOCUMENT TYPE: Product Evaluation ISSN: 0018-9235 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: Interlink Electronics has introduced the ePad, a pen-like input device that captures handwritten signatures for PC applications such as signing electronic documents and authorizing online banking transactions . The pressure-sensitive pad, which is backed by Interlink's VP9000 software and connects to a computer via a standard RS-232 port, sells for \$69.95 and is also available without software in packs of 24.

DESCRIPTORS: Personal, digital assistants; Product evaluation; 11/5/1 (Item 1 from file: 256)

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.

(c) 2003 Info. Sources Inc. All rts. reserv.

00136246

DOCUMENT TYPE: Review

PRODUCT NAMES: Wireless Internet (840408); Meetings & Conventions

(830384)

TITLE: Wireless PDAs Eliminate Conference Registration Bottleneck

AUTHOR: Staff

SOURCE: Business Solutions, v16 n18 p72(1) Dec 2001

ISSN: 1079-7467

HOMEPAGE: http://www.corrypub.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

Handspring's Handspring Visor Deluxe, Novatel's Minstrel S, Extech's MST-IV, and VeritTop VeritTop Mobile Terminal and VeritTop Virtual Gateway are devices chosen for client CapitalVenue by VeritTop, a mobile wireless credit authorization provider. CapitalVenue sought an automated way to record the credit card information of walk-in registrants at its conferences. Attendees of half-day sessions had to be registered quickly before the start of the conferences, which created a traffic jam at the registration table. The new, automated system uses personal digital assistant (PDA)-based wireless credit authorization via wireless modems, mag-stripe card readers, and Internet connectivity software. With the wireless solution, no phone lines or power sounces had to be supplied at registration tables. In addition, 23 credit card transactions were authorized and processed easily and in real time, and no delayed data entry was required.

COMPANY NAME: Vendor Independent (999999)

DESCRIPTORS: Credit Cards; Handhelds & Palmtops; Meetings &

Conventions; Mobile Computing; Reservation Systems; Wireless Internet

REVISION DATE: 20030327

11/5/2 (Item 2 from file: 256)

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.

(c) 2003 Info. Sources Inc. All rts. reserv.

00123955

DOCUMENT TYPE: Review

PRODUCT NAMES: ProPay.com (003336)

TITLE: Electronic payments get personal

AUTHOR: Rosen, Cheryl

SOURCE: Information Week, v788 p43(2) May 29, 2000

ISSN: 8750-6874

HOMEPAGE: http://www.informationweek.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis GRADE: Product Analysis, No Rating

ProPay's ProPay.com, an online, Web-accessible person-to-person e-commerce payment system, aims to allow any two people to exchange funds from any location at any time of day or night. ProPay would allow any participant to fill out a set of documents and obtain approval online to receive credit card payments. People will be able to transfer money between personal digital assistants ( PDAs ), and wireless transmission support will eventually be augmented with other applications, including online auctions.

Customers initiate the process by signing up for credit approval on ProPay's Web site, just as merchants do. When approved, buyers from online auction sites pay ProPay via credit card, but their credit card information is not given to the seller. ProPay guarantees payment to sellers within two days. ProPay's fee is 35 cents plus 3.5 percent of the transaction, and it also holds the money for two days, earning interest on it during that time period. According to analysts and Brad Wilkes, founder and CEO of ProPay, this fee is appropriate for a secure, global, personal electronic payment system. ProPay has completed two rounds of venture funding and plans an IPO. ProPay.com's activities rely on a proprietary online account underwriting and risk-assessment system. The system identifies the person requesting an account, authenticates the credit card numbers, and evaluates the requesters credit rating.

A

COMPANY NAME: Propay.com (681822)

DESCRIPTORS: Auctions; Credit Cards; E-Commerce; E-Payment; Internet

Shopping

REVISION DATE: 20000830

```
12/5/1
              (Item 1 from file: 2)
DIALOG(R)File
                  2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.
            INSPEC Abstract Number: C2002-09-7120-038
  Title: Comparing and contrasting micro-payment models for e-commerce
systems
  Author(s): Xiaoling Dai; Grundy, J.; Lo, B.W.N.
  Author Affiliation: Dept. of Comput. Sci., Auckland Univ., New Zealand
                Title: 2001 International Conferences on Info-Tech and
Info-Net. Proceedings (Cat. No.01EX479)
                                                 Part vol.6
                                                                     p.35-41 vol.6
  Editor(s): Zhong, Y.X.; Cui, S.; Wang, Y. Publisher: IEEE, Piscataway, NJ, USA
                              2001 Country
                    Date:
                                                           Publication:
  Publication
                                                                               USA
vol. (391+853+567+410+350+178) pp.
                           Material Identity Number: XX-2002-00256
   ISBN: 0 7803 7010 4 \
  U.S. Copyright Clearance Center Code: 0-7803-7010-4/01/$10.00
                 Title: 2001 International Conferences on Info-tech and
  Conference
Info-net. Proceedings
  Conference Sponsor: China Assóc. Sci. & Technol. (CAST); Chinese Inst.
Electron. (CIE); IEEE Beijing Sect.; IEE Beijing Center; ATM Forum; Beijing
Internet Inst.; IEEE Commun Soc.; IEEE Comput. Soc.; IEEE Control Soc.; Global Inf. Infrastructure Commission (GIIC); World Federation of Eng.
Organ. (WFEO); IFIP; Internet Eng. Task Force (IETF); Int. Council of Comput. Commun. (ICCC)
                                       /Nov/ 200h
  Conference Date: 29
                              ∕óct.-1\
                                                        Conference Location: Beijing,
China
                           Document Type: Conference Paper (PA)
  Language: English
  Treatment: General Review (G); Wew Developments (N); Practical (P)
  Abstract: The current macro-payment systems used by most e-commerce sites
are not suitable for high-volume low-cost produce or service purposes, such as charging per page for Web site browsing. These payment technologies suffer from the use of heavyweight encryption technologies and reliance on
always-online authorisation servers Micro- payment systems offer an alternative strategy of pay-as-you-go charging, even for very low-cost, very high volume charging. However, several different micro-payment schemes
exist, hot all of which are suitable for all e-commerce uses. We compare and contrast several micro-payment models and outline a new micro-payment
technology which we have been developing. (No Refs)
  Subfile: C
  Descriptors: cryptography; electronic money; Arotocols
Identifiers: micro-payment protocols; electronic commerce; per-page charging; Web site browsing; encryption technologies; always-online
authorisation servers; pay-as-you-go charging; PayWord chain
  Class Codes: C7120 (Financial computing); C6130E (Data interchange);
C6130S (Data security); C5640 (Protocols)
  Copyright 2002, IEE
              (Item 1 from file: 8)
 12/5/2
DIALOG(R) File 8:Ei Compendex(R)
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.
           E.I. No: EIP03127406943
06329922
  Title: Threshold generation of signcryption
  Author: Zhang, Futai; Ji, Dongyao; Wang, Yumin
Corporate Source: College of Math. and Comp. Sci. Nanjing Normal University, Nanjing 210097, China
  Source: Chinese Journal of Electronics v 12 n 1 January 2003. p 82-85
  Publication Year: 2003
                    ISSN: 1022-4653
  CODEN: CHJEEW
  Language: English
  Document Type: JA; (Journal Article)
                                                 Treatment: A; (Applications); T;
(Theoretical); X; (Experimental)
  Journal Announcement: 0303W4
```

Search performed by Sylvia Keys

November 24, 2003

Abstract: Signcryption is a new cryptographic primitive which simultaneously fulfiles both the functions of digital signature and public key encryption in a logically single step, and with a cost significantly lower than that required by "signature followed by encryption". It has many applications in such areas as electronic cash payment systems, secure and authenticated key establishment, secure multi-casting over the Internet, authenticated key recovery, etc.. In secure and authenticated group communication there is a need for threshold generation of signcryption. In this paper, we propose a protocol for threshold generation of signcryption using the techniques of verifiable secret sharing (VSS) and secure multi-party computation (MPC). In the protocol, any t or more honest members can efficiently generate valid signcryption text of a given message, while the adversary whole corrupts up to t - 1 group members cannot forge any valid signcryption text. The protocol of computing reciprocals of secrets presented by R. Gennaro, S. Jarecki, H. Krawczyk, and T. Rabin is also modified so that the efficiency is improved. 14 Refs.

Descriptors: \*Security of data; Electronic document identification systems; Public key cryptography; Logic programming; Requirements engineering; Electronic commerce; Multicasting; Internet

Identifiers: Signcryption threshold generation; Electronic cash payment systems; Verifiable secret sharing; Secure multiparty computation Classification Codes:

723.2 (Data Processing); 723.5 (Computer Applications) 723 (Computer Software, Data Handling & Applications)

(COMPUTERS & DATA PROCESSING)

(Item 2 from file: 8) 12/5/3 DIALOG(R) File 8:Ei Compendex(R)

(c) 2003 Else vier Eng. Info. Inc. All rts. reserv.

06043497 E.I. No: EIP02176928195

Title: Efficient\fair payment system by electronic wallet Author: Chen, Kai; Yang, Bo; Wang, Yu-Min; Xiao, Guo-Zhen Corporate Source: State Key Lab. of ISN Inst. of Info. and Privacy Xidian

Univ., Xi'an 710071 China Source: Jisuanji Xuebao/Chinese Journal of Computers 24 n 11 November

2001. p 1191-1195
Publication Year: 2001

ISSN: 0254-4164 CODEN: JIXUDT

Language: Chinese

Document Type: JA; (Jourhal Article) Treatment: A; (Applications); T; (Theoretical)

Journal Announcement: 0204W4

Abstract: Electronic payment systems are well-understood to be an essential step on the road to electronic commerce, and are thus in high demand. There has been a strong effort in developing secure untraceable off-line electronic cash protocols since Chaum proposed the first e-cash system in 1991 and some systems are now in use. However, there are still many open problems in the field of e-payment system research. The basic problems with all electronic payment systems for issuers of e-cash are to prevent double spending and to prevent kidnap and laundering. For the using of credit card in transaction is very popular, it is proper to design e-payment system based on smart card. There are many researchers making great efforts to do this work and gain some useful results. An efficient fair payment system by electronic wallet is presented. Users in the system have only one personal account in the bank. In the withdrawal protocol, the user gives a correctly constructed message for possibly coin tracing to the bank and gets a blind signature on his identity from the bank. In the payment protocol, with the help of tamper-resistance card, the user proves to the shop that he spends a valid e-cash and sends a correctly constructed message for possibly owner tracing to the shop. A valid e-cash can be deposited to the bank by the shop. If a user spends an e-cash more than one times, with the help of the Trustee, the bank can find the user

=> d hist

(FILE 'HOME' ENTERED AT 14:58:43 ON 24 NOV 2003)

FILE 'CONFSCI' ENTERED AT 14:58:49 ON 24 NOV 2003
L1 0 S (AUTHORIZ? OR AUTHORIS? OR VALID? OR VERIF? OR APPROV?) (5N) (T

File 344: Chinese Patents Abs Aug 1985-2003/Apr (c) 2003 European Patent Office File 347: JAPIO Oct 1976-2003/Jul (Updated 031105) (c) 2003 JPO & JAPIO File 350:Derwent WPIX 1963-2003/UD, UM &UP=200375 (c) 2003 Thomson Derwent File 348:EUROPEAN PATENTS 1978-2003/Nov W03 (c) 2003 European Patent Office File 349:PCT FULLTEXT 1979-2002/UB=20031120,UT=20031113 (c) 2003 WIPO/Univentio ?ds Description Set Items S1 4483 AU='WANG Y':AU='WANG Y Q' S1 AND PAYMENT? S2 6 s3 39 AU='WANG YNJIUN':AU='WANG YOKE SAN' S4 6 S3 AND PAYMENT?

```
(Item 1 from file: 350)
 2/3,K/1
DIALOG(R) File 350: Derwent WPIX
 (c) 2003 Thomson Derwent. All rts. reserv.
             **Image available**
015649210
WPI Acc No: 2003-711393/200367
XRPX Acc No: N03-568941
  Electronic fund transaction processing system transfers data file created
  from processed transaction data to financial institution, agent of
  institution or financial network
Patent Assignee: VENTANEX (VENT-N)
Inventor: BRADWELL S; DEREADT C; LOCKWOOD J; NICHOL D; PFIFFNER D; QUIROZ P
  ; SANDERS C; SCHEIBLER R; SYMCHYCH T; WANG Y
Number of Countries: 001 Number of Patents: 001
Patent Family:
                             Applicat No
Patent No
                                                    Date
              Kind
                     Date
                                             Kind
                                                             Week
US 20030158811 A1 20030821 US/2001306173
                                             Ρ
                                                   20010718
                                                             200367 B
                             US/2002198292
                                              Α
                                                  20020718
Priority Applications (No Type Date): US 2001306173 P 20010718; US
  2002198292 A 20020718
Patent Details:
                        /Main IPC
                                      Filing Notes
Patent No Kind Lan Pg
                   3,6 G06F-017/60
                                      Provisional application US 2001306173
US 20030158811 A1
... Inventor: WANG Y
Abstract (Basic):
           Facilitates an efficient, reliable, secure shift from paper
    based check / payment and manual accounts receivable processing systems
             (Item 2 from file: 350)
 2/3,K/2
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
013648847
WPI Acc No: 2001-133059/200114
   Payment method using a debit card for Internet e-commerce - NoAbstract
Patent Assignee: IMP VISION JH (IMPV-NY
Inventor: WANG Y M
Number of Countries: 001 Number of Patents: 001
Patent Family:
                     Date
                             Applicat No
Patent No
              Kind
                                            Kind
                                                   Date
KR 2000030596 A
                   20000605 KR 200011487
                                             Α
                                                 20000308
Priority Applications (No Type Date): KR 200011487 A 20000308
Patent Details:
Patent No Kind Lan Pg
                         Main IPC
                                     Filing Notes
KR 2000030596 A
                       G06/F-017/60
   Payment method using a debit card for Internet e-commerce...
Inventor: WANG Y M
 2/3, K/3
             (Item 3 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
013484960
WPI Acc No: 2000-656903/200064
XRPX Acc No: N00-486991
```

Search performed by Sylvia Keys November 24, 2003

Interactive interlinking recursive computer remote education network and

setting up network and method for application

```
Patent Assignee: WANG H (WANG-I)
Inventor: WANG H; WANG Y
Number of Countries: 001 Number of Patents: 001
Patent Family:
                             Applicat/No
Patent No
                                            Kind
                                                    Date
              Kind
                     Date
CN 1260541
                            CN 2000103024
                                                  20000229 200064 B
              Α
                   20000719
                                             Α
Priority Applications (No Type Date): CN 2000103024 A 20000229
Patent Details:
                        Main IPC
Patent No Kind Lan Pg
                                     Filing Notes
                       G06F-0/15/163
CN 1260541
              Α
... Inventor: WANG Y
Abstract (Basic):
           software to implement recurrent transfer of knowledge and
    ability between teachers and students and recursive payment of
    education cost to greatly reduce the remote education cost based on
    computer network, and...
 2/3, K/4
             (Item 4 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
             **Image available**
011385127
WPI Acc No: 1997-363034/199733
Related WPI Acc No: 1990-269507; 1991-231557; 1992-168617; 1992-176597;
  1992-183278; 1992-381621; 1993-295556; 1993-296640; 1993-388111;
  1994-001174; 1995-106261; 1995-139019; 1995-214843; 1996-012579;
  1996-200492; 1996-427283; 1997-350434; 1998-332318; 1999-023597;
  1999-179488; 1999-325837; 2000-021890; 2000-115294
XRPX Acc No: N97-301846
  Inventory management and storage system using coded re-order information
  - compares count of number of inventory items physically present at
  inventory holder with re-order count in re-ordering information and
  generates re-order message
Patent Assignee: SYMBOL TECHNOLOGIES INC (SYMB-N)
Inventor: BRAVMAN R; TOEDT D C; WANG Y P
Number of Countries: 001 Number of Patents: 001
Patent Family:
                             Applicat No
Patent No
              Kind
                     Date
                                            Kind
                                                   Date
                                                            Week
                                                 19901113
US 5646389
                   19970708
                             US 90612664
                                                            199733 B
              Α
                                             Α
                             US 91642775
                                                 19910118
                                             Α
                             US 91653822
                                             Α
                                                 19910211
                             US 92923766
                                                 19920803
                                             Α
                             US 94351708
                                             Α
                                                 19941208
                             US 96661731
                                                 19960611
Priority Applications (No Type Date): US 91653822 A 19910211; DS 90612664 A
  19901113; US 91642775 A 19910118; US 92923766 A 199208<del>03; US 9</del>4351708 A
  19941208; US 96661731 A 19960611
Patent Details:
Patent No Kind Lan Pg
                         Main IPC
                                     Filing Notes
           A 41 G06F-017/60
                                     CIP of application US 90612664
US 5646389
                                     CIP of application US 91642775
                                     Div ex application US 91653822
                                     Div ex application US 92923766
                                     Cont of application US 94351708
                                     Div ex patent US 5113445
                                     CIP of patent US 5159635
                                     Div ex patent US 5393965
```

9

1

1.3

1,5

... Inventor: WANG Y P

```
and credit card thereby eliminating need...
 2/3,K/5
           (Item 5 \from file: 350)
DIALOG(R) File 350: Derwent WPIX
 (c) 2003 Thomson Derwent. All rts. reserv.
             **Image available**
010205007
WPI Acc No: 1995-106261/199514
Related WPI Acc No: 1990-26\507; 1991-008504; 1991-231557; 1992-168617;
  1992-176597; 1992-183278; $\frac{1}{2}992-260518; 1992-381621; \frac{1}{2}1993-177122;
  1993-295556; 1993-296640; 1993-388111; 1994-0011,74; 1994-312038;
  1994-312039; 1995-139019; 1995-214843; 1996-01,2579; 1996-200492;
  1996-427283; 1997-247135; 1\( 997-322584\); 1997-3\( 50434\); 1997-363034;
  1998-332318; 1998-569377; 1999-023597; 1999-179488; 1999-325837;
  2000-021890; 2000-115294; 2000-492116
XRPX Acc No: N95-084052
  Flexible merchandise checkout and inventory management system - has
  separable modules for scanning purchased items and receiving customer
  payments and processes customer checks tendered in payment in real
  time via electronic funds transaction orders
Patent Assignee: SYMBOL TECHNOLOGIES INC (SYMB-N)
Inventor: BRAVMAN R; WANG Y P
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No
                      Date/
                              Applicat No
             Kind
                                             Kind
                                                     Date
                             US 90612664
US 5393965
             A
                   19950228
                                             A 19901113 199514 B
                              us 9\1642775
                                              A 19910118
                              US 93923766
                                              A 19920803
Priority Applications (No Type Date): US 92923766 A 19920803; US 90612664 A 🛷
  19901113; US 9164/2775 A 19910118
Patent Details:
Patent No Kind Lan Pg
                                      Kiling Notes
                        Main IPC
                  44 GO6K-015/00
                                      CIP of application US 90612664
                                      CIP of application US 91642775
                                      CIA of patent US 5159635
... has separable modules for scanning purchased items and receiving
  customer payments and processes customer checks tendered in payment
  in real time via electronic funds transaction orders
...Inventor: WANG Y P
...Abstract (Basic): throughput. The checkout system includes separable modules for scanning purchased items and for receiving customer
    payments , respectively. Customer checks tendered in payment may be
    processed in real time via electronic funds transaction (EFT) orders...
 2/3,K/6
             (Item 1 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
00550219
            **Image available**
METHOD AND SYSTEM FOR TACTILE IMAGING FOR BREAST CANCER EXAMINATION AND
    DETECTION OF PROSTATE CANCER
PROCEDE ET SYSTEME D'IMAGERIE TACTILE DESTINES A UN EXAMEN DU CANCER DU
    SEIN ET A LA DETECTION DU CANCER DE LA PROSTATE
Patent Applicant/Assignee:
  CATHOLIC UNIVERSITY OF AMERICA,
  WANG Y Joseph,
  FREEDMAN Matthew T,
```

· ii

1

... Abstract (Basic): ADVANTAGE - Separate checkout function of taking inventory of customer purchases from payment receiving function thereby improving throughput. Automatically persons checking account

```
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.
01636884
 PAYMENT
         SYSTEM
SYSTEME DE PAIEMENT
PATENT ASSIGNEE:
  eSignX Corporation, (4074751), 19925 Steven's Creek Boulevard, Cupertino,
    CA 95014, (US), (Applicant designated States: all)
INVENTOR:
   WANG, Ynjiun, P., 10127 Linda Ann Place, Cupertino, CA 95014, (US
PATENT (CC, No, Kind, Date):
                               WO 2003065318 030807
                               EP 2,002806700 021203; WO 2002US38377 021203
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): US 57465 020125
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
  IE; IT; LI; LU; MC; NL; PT
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO INTERNATIONAL PATENT CLASS, G07F-007/00
LANGUAGE (Publication, Procedural, Application): English; English
 PAYMENT SYSTEM
INVENTOR:
   WANG, Ynjiun,
             (Item 2 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.
00803212
BAR CODE DATAFORM SCANNING AND LABELING APPARATUS AND METHOD
BARCODEZEICHEN-LESER UND VORRICHTUNG ZUM ETIKETTIEREN UND VERFAHREN
DISPOSITIF ET PROCEDE DE LECTURE ET D'ETIQUETAGE DE MODELE DE DONNEES DE
    CODE A BARRES
PATENT ASSIGNEE:
  METANETICS CORPORATION, (2043910), Suite 101, 43 Barkley Circle, Fort
    Myers, FL 33907, (US), (Proprietor designated states: all)
INVENTOR:
  BELLER, William, E., 2431 Banning Road, Akron, OH 44333, (US)
   WANG, Ynjiun, P., 5235-17 Red Cedar Dráve, Fort Myers, FL 33907, (US
LEGAL REPRESENTATIVE:
  Holmes, Miles Keeton et al (72831), D./YOUNG & CO., 21 New Fetter Lane,
    London EC4A 1DA, (GB)
PATENT (CC, No, Kind, Date):
                               EP 829067/ A2 980318 (Basic)
                               EP 82906/ B1 011121
                               WO 9627852 960912
                               EP 96909559 960228; WO 96US2860 960228
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): US 396519 950301
DESIGNATED STATES: DE; FR; GB; IT
INTERNATIONAL PATENT CLASS: G06K-017/00
NOTE:
  No A-document published by EPO
LANGUAGE (Publication, Procedural / Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                      Word Count
                           2001/47
      CLAIMS B
                                        654
                (English)
      CLAIMS B
                           200/147
                                        657
                 (German)
                           20Ø147
      CLAIMS B
                                        764
                 (French)
      SPEC B
                           200147
                (English)
                                       7328
Total word count - document A
Total word count - document/B
                                       9403
Total word count - documents A + B
                                       9403
```

Search performed by Sylvia Keys

November 24, 2003

(Item 1 from file: 348)

4/3, K/1

```
... US)
   WANG, Ynjiun, P ...
...SPECIFICATION If the retailer sells a product on a lay-away plan or on
  an extended payment basis, the modified bar code dataform may include
  the down payment, account balance and payment history. When future
  payments are made, the retailer can read the modified bar code dataform,
  and generate a new modified bar code dataform incorporating the new
  payment information. **
    Figure 3 is a schematic representation of a preferred embodiment of the
  bar code...
 4/3,K/3
             (Item 1 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
01035262
            **Image available**
 PAYMENT SYSTEM
SYSTEME DE PAIEMENT
Patent Applicant/Assignee:
  ESIGNX CORPORATION, 19925 Stevens Creek Boulevard, Cupertino, CA 95014,
    US, US (Residence), US (Nationality), (For all designated states
    except: US)
Patent Applicant/Inventor:
   WANG Ynjiun P , 10127 Linda Ann Place, Cupertino, CA 95014, US, US
    (Residence), US (Nationality), (Designated only for: US
Legal Representative:
  SHERIDAN James A (et al) (agent), Moser, Patterson & Sheridan, L.L.P.,
    Suite 250, 350 Cambridge Avenue, Palo/Alto, CA 94306, US,
Patent and Priority Information (Country/Number, Date):
                        WO 200365318 A2/20030807 (WO 0365318)
WO 2002US38377/20021203 (PCT/WO US0238377)
  Patent:
  Application:
  Priority Application: US 200257465 20020125
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
  CZ DE DK DM DZ EC EE ES FI GB GD SE GH GM HR HU ID IL IN IS JP KE KG KP
  KR KZ LC LK LR LS LT LU LV MA MD/MG MK MN MW MX MZ NO NZ OM PH PL PT RO
  RU SC SD SE SG SK SL TJ TM TN TÆ TT TZ UA UG US UZ VC VN YU ZA ZM ZW
  (EP) AT BE BG CH CY CZ DE DK EÆ ES FI FR GB GR IE IT LU MC NL PT SE SI SK
  TR
  (OA) BF BJ CF CG CI CM GA GN/GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SI SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 12696
 PAYMENT SYSTEM
Patent Applicant/Inventor:
  WANG Ynjiun P ...
Fulltext Availability:
  Detailed Description
  Claims
Detailed Description
   PAYMENT SYSTEM
  CROSS-REFERENCE /TO RELATED APPLICATIONS
 This application is a continuation-in-part of a...
...a continuation-in-part of Serial No.
 09/067,176, #jied April 27, 1998, entitled Payment System, invented by
```

INVENTOR:

Ynjiun P.

card or Java phone with xDSM software PEAD module, then the **payment** server 1220 sends a transaction message to the authorizer's phone 1230 for approval using...lookup result indicates that the user's cellular phone is a touchtone phone, then the **payment** server 1220 sends a message or goes through an interactive voice response system to call...

#### Claim

... is a unique merchant assigned number, then look up information in the database in the **payment** server using the phone number or pin number as the index.

6 A method as claimed in claim 1 or claim 5 wherein the **payment** server uses the transaction associated phone number or pin number as an index to a...A method as claimed in claim 1 or claim 5, wherein the party controlling the **payment** server is the issuer of the merchant card. - 38

4/3,K/4 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00935997 \*\*Image available\*\*

ELECTRONIC TRANSACTION SYSTEMS AND METHODS THEREFOR SYSTEMES ET PROCEDES DE TRANSACTION ELECTRONIQUE

Patent Applicant/Assignee:

ESIGNX CORPORATION, 409 E. Hamilton Avenue, Suite 200, Campbell, CA 95008, US, US (Residence), US (Nationality)
Inventor(s):

WANG Ynjiun P , 10127 Linda Ann Place, Cupertino, CA 95014, US, DING Joshua C, 4943 Tuscany Circle, San Jose, CA 95135, US, GRIZZARD James A, 3042 Driftwood Drive, #37, San Jose, CA 95128, US Legal Representative:

PATTERSON William B (agent), Moser, Patterson & Sheridan LLP, 3040 Post Oak Blvd., Suite 1500, Houston, TX 77056, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200269291 A2-A3 20020906 (WO 0269291)
Application: WO 2002U\$5701 20020222 (PCT/WO US0205701)

Priority Application: US 2001/92224 20010223 Designated States: AE AG AL AM AT AU AZ\_BA\_BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LY MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ 7M TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM/GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 14905

Inventor(s):

WANG Ynjiun P... Fulltext Availability: Detailed Description

Detailed Description

... for the proposed transaction such as the address information, quantity information, size information, method of **payment**, credit card number, account number, and the like), and an indication of approval of the...

4/3,K/5 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

```
00835760
            **Image available**
ELECTRONIC TRANSACTION SYSTEMS AND METHODS THEREFOR
SYSTEME DE TRANSACTION ELECTRONIQUE ET PROCEDES ASSOCIES
Patent Applicant/Assignee:
  ESIGN INC, Suite 200, 409 East Hamilton Ave., Campbell, CA 95008, US, US
     (Residence), US (Nationality)
Inventor(s):
   WANG Ynjiun P , 10127 Linda Ann Place, Cupertino, CA 95014, US
Legal Representative:
  SHERIDAN James A (et al) (agent), Flehr, Hohback, Test, Albritton &
    Herbert LLP, Suite 3400, 4 Embarcadero Center, San Francisco, CA
    94111-4187, US,
Patent and Priority Information (Country, Number, Date):
  Patent:
                         WO 200169388 A1 20040920 (WO 0169388)
                         WO 2000US32910 20001204 (PCT/WO US0032910)
  Application:
  Priority Application: US 2000523825 20000313
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ
  DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
  LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG
  SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SI SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU JJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 14683
Inventor(s):
   WANG Ynjiun P ...
Fulltext Availability:
  Detailed Description
Detailed Description
... the proposed transaction such as the address information, quantity
  inforri-iation, size information, method of payment, credit card
  number, account number, and the like), and an indication of approval of
  the...
 4/3, K/6
             (Item 4 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
00345339
BAR CODE DATAFORM SCANNING AND LABELING APPARATUS AND METHOD
DISPOSITIF ET PROCEDE DE LECTURE ET D'ETIQUETAGE DE MODELE DE DONNEES DE
    CODE A BARRES
Patent Applicant/Assignee:
  METANETICS CORPORATION,
Inventor(s):
  BELLER William E,
   WANG Ynjiun P
Patent and Priority Information (Country, Number, Date):
                        WO 9627852 A2 19960912
                        WO 96US2860 19960228 (PCT/WO US9602860)
  Application:
  Priority Application: US 95396519 19950301
Designated States: AU CA CN JP MX AT BE CH DE DK ES FR GB GR IE IT LU MC NL
Publication Language: English
Fulltext Word Count: 10132
Inventor(s):
. . .
     WANG Ynjiun P
Fulltext Availability:
```

```
File 16:Gale Group PROMT(R) 1990-2003/Nov 21
          (c) 2003 The Gale Group
 File 148:Gale Group Trade & Industry DB 1976-2003/Nov 24
          (c) 2003 The Gale Group
 File 160:Gale Group PROMT(R) 1972-1989
          (c) 1999 The Gale Group
 File 275: Gale Group Computer DB(TM) 1983-2003/Nov 21
          (c) 2003 The Gale Group
 File 621: Gale Group New Prod. Annou. (R) 1985-2003/Nov 24
          (c) 2003 The Gale Group
File 636: Gale Group Newsletter DB(TM) 1987-2003/Nov 21
          (c) 2003 The Gale Group
       9:Business & Industry(R) Jul/1994-2003/Nov 21
 File
          (c) 2003 Resp. DB Svcs.
     15:ABI/Inform(R) 1971-2003/Nov 22
 File
          (c) 2003 ProQuest Info&Learning
      20:Dialog Global Reporter 1997-2003/Nov 24
 File
          (c) 2003 The Dialog Corp.
 File 95:TEME-Technology & Management 1989-2003/Nov W1
          (c) 2003 FIZ TECHNIK
 File 476: Financial Times Fulltext 1982-2003/Nov 24
          (c) 2003 Financial Times Ltd
 File 610:Business Wire 1999-2003/Nov 24
          (c) 2003 Business Wire.
File 613:PR Newswire 1999-2003/Nov 24
          (c) 2003 PR Newswire Association Inc
File 624:McGraw-Hill Publications 1985-2003/Nov 21
          (c) 2003 McGraw-Hill Co. Inc
File 634:San Jose Mercury Jun 1985-2003/Nov 22
          (c) 2003 San Jose Mercury News
File 810: Business Wire 1986-1999/Feb 28
          (c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
          (c) 1999 PR Newswire Association Inc
File 88:Gale Group Business A.R.T.S. 1976-2003/Nov 20
          (c) 2003 The Gale Group
File 647:CMP Computer Fulltext 1988-2003/Nov W3
          (c) 2003 CMP Media, LLC
File 674:Computer News Fulltext 1989-2003/Nov W2
          (c) 2003 IDG Communications
File 696:DIALOG Telecom. Newsletters 1995-2003/Nov 21
          (c) 2003 The Dialog Corp.
File 369:New Scientist 1994-2003/Nov W3
          (c) 2003 Reed Business Information Ltd.
File 484:Periodical Abs Plustext 1986-2003/Nov W3
          (c) 2003 ProQuest
File 370:Science 1996-1999/Jul W3
          (c) 1999 AAAS
File 553: Wilson Bus. Abs. FullText 1982-2003/Oct
          (c) 2003 The HW Wilson Co
?ds
Set
                Description
        Items
                 (AUTHORIZ? OR AUTHORIS? OR VALID? OR VERIF? OR APPROV?) (5N-
S1
       228316
             ) (TRANSACTION? OR PAYMENT?)
                CELLPHONE? OR CELL?()PHONE OR PORTABLE()DEVICE? OR PEAD OR
S2
       512526
             PORTABLE() ELECTRONIC() AUTHORIZATION() DEVICE? OR PDA OR FONE? -
             OR PDAS OR PERSONAL()DIGITAL()ASSISTANT?
S3
                PIN? ? OR (CHARGE OR CREDIT) () CARD? OR NUMBER? ? OR PASSWO-
     14428965
             RD? OR ID OR IDENTIFICATION? OR PERSONAL()IDENTIFICATION()NUM-
             BER?
         3669
                AU=(WANG, Y? OR WANG Y ?)
S4
          439
S5
                S1(S)S2
          208
S6
                S5(S)S3
           78
                S1(5N)S2
S7
```

<b>4</b> S8	26	S7 (S) S3
S9	8	S8 NOT PY>1999
S10	5	RD (unique items)
S11	0	S4(S)S1
. ?		

10/3,K/1 (Item 1 from file: 16) DIALOG(R) File 16: Gale Group PROMT(R) (c) 2003 The Gale Group. All rts. reserv. Supplier Number: 45181990 (USE FORMAT 7 FOR FULLTEXT) US West Cellular Wireless Credit Card Terminal 12/02/94 Newsbytes, pN/A Dec 2, 1994 Language: English Record Type: Fulltext Document Type: Newswire; General Trade Word Count: 442 years. What the POS-50 (for "point of sale-50") does is double as a cellular phone and a transaction verifier . A merchant slides a credit through a reader, and the phone calls out to verify and approve the transaction. Once... 10/3,K/2 (Item 1 from file: 148) DIALOG(R) File 148: Gale Group Trade & Industry DB (c) 2003 The Gale Group. All rts. reserv. 09410104 SUPPLIER NUMBER: 18896941 (USE FORMAT 7 OR 9 FOR FULL TEXT) On the go. (handheld computers) (includes related article on Intel's Flash Memory Miniature Cards) (Technology Buyers Guide) (Buyers Guide) Fortune, v134, nSPEISS, p64(9) Wntr, 1997 DOCUMENT TYPE: Buyers Guide ISSN: 0015-8259 LANGUAGE: English RECORD TYPE: Fulltext; Abstract WORD COUNT: 4556 LIME COUNT: 00352 (Item /1 from file: 9) 10/3,K/3 DIALOG(R) File 9:Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv. 2010902 | Supplier Number: 02010902 (USE FORMAT 7 OR 9 FOR FULLTEXT) WITH ACCURACY UP, COST DOWN, MARKET GROWS FOR EDINA, MN., BIOMETRICS CO. (The market for biometric products is growing; total sales of biometric hardware, excluding sales to law enforcement and integration revenue and could reach \$50 mil in 1999) Saint Paul Pioneer Press , p N/A November 16, 1997 DOCUMENT TYPE: Regional Newspaper ISSN: 1050-0405 (United States) LANGUAGE: English RECORD TYPE: Fulltext WORD COUNT: 1939 (USE FORMAT 7 OR 9 FOR FULLTEXT) ... Rowley expects they'll soon drop to \$100. "We're in the business of replacing passwords , PINs , and signatures," Rowley boasts. "We've been approached by the cell phone industry looking to authenticate and verify transactions over the phone and cars

companies wanting to secure access to vehicles. We even had ...

10/3,K/4 (Item 2 from file: 9) DIALOG(R)File 9:Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv.

(USE FORMAT 7 OR 9 FOR FULLTEXT) 1082089 Supplier Number: 01082089

## US West Cellular Wireless Credit Card Terminal (US Wireless Data notes US West Cellular Wireless Data is to market its POS-50 wireless credit card and check verfication terminal)

Newsbytes News Network, p N/A

December 02, 1994

DOCUMENT TYPE: Journal (United States)
LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 439

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...years.

What the POS-50 (for "point of sale-50") does is double as a **cellular phone** and a **transaction verifier**. A merchant slides a **credit card** through a reader, and the phone calls out to verify and approve the transaction.

Once...

10/3,K/5 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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00885546 95-34938

#### New products

Anonymous

Chain Store Age Executive v70n7 (Section 1) PP: 43

ISSN: 0193-1199 JRNL CODE: CSA

WORD COUNT: 537

43 Jul 1994

...TEXT: The POS-50, from U.S. Wireless Data, is a portable, fully-integrated wireless mobile **credit card** and check authorization terminal that enables merchants to **authorize transactions** anywhere **cellular phone** service exists. The 6.5-lb. unit includes 128Kb memory, a 16-position keypad, a track 2 card reader, a **PIN** pad interface. and an RJ-11 telephone/data interface.

The Atlas Model AS 40, from...

File 344: Chinese Patents Abs Aug 1985-2003/Apr (c) 2003 European Patent Office File 347: JAPIO Oct 1976-2003/Jul (Updated 031105) (c) 2003 JPO & JAPIO File 350: Derwent WPIX 1963-2003/UD, UM & UP=200375 (c) 2003 Thomson Derwent ?ds Set Items Description (AUTHORIZ? OR AUTHORIS? OR VALID? OR VERIF? OR APPROV?) (5N-S1 2649 ) (TRANSACTION? OR PAYMENT?) S2 CELLPHONE? OR CELL?() PHONE OR PORTABLE() DEVICE? OR PEAD OR PORTABLE()ELECTRONIC()AUTHORIZATION()DEVICE? OR PDA OR FONE? -OR PDAS OR PERSONAL()DIGITAL()ASSISTANT? S3 PIN? ? OR (CHARGE OR CREDIT)()CARD? OR NUMBER? ? OR PASSWO-RD? OR ID OR IDENTIFICATION? OR PERSONAL()IDENTIFICATION()NUM-365 AU=(WANG, Y? OR WANG Y ?) S4 93 S1 AND S2 S5 52 S5 AND S3 S6 S7 38 S6 AND IC=G06F S8 S4 AND S1

```
7/5/1
               (Item 1 from file: 350)
 DIALOG(R) File 350: Derwent WPIX
 (c) 2003 Thomson Derwent. All rts. reserv.
                   **Image available**
 015716520
WPI Acc No: 2003-778720/200373
XRPX Acc No: N03-624145
   Employee time records keeping method for employee of point of sales
   terminal, involves generating time record using recorded clock-in and
   clock-out time of identified employee and transmitting generated record
   to host server
 Patent Assignee: HORNE W B (HORN-I); HUMPHRIES D E (HUMP-I)
 Inventor: HORNE W B; HUMPHRIES D E
Number of Countries: 001 Number of Patents: 001
Patent Family:
                    Kind Date Applicat No. 20031009 US 2002118310 A
Patent No
                                                                 Kind
                                                                            Dat/e
                                                                           20020409 200373 B
US 20030191700 A1
Priority Applications (No Type Date): US 20021183/0 A 20020409
Patent Details:
Patent No Kind Lan Pg
                                    Main IPC
                                                       Filing Notes
                                7 G06F-017/60
US 20030191700 A1
Abstract (Basic): US 20030191700 A1
            NOVELTY - A time record generated using the recorded clock-in and
      clock-out time of an employee, after/receiving the identification
      data, is transmitted to a host server (220) through a communication
      network (240).
      USE - For recording employee time records in point of sales terminal such as cash registers, electronic payment authorization devices for use with credit cards, debit cards, smart cards, and personal digital assistants (PDAs), cellular telephones,
      personal computers, smart card devices, telephones with interactive
     voice response system, media devices, telephones with interactive voice response system, media device with communication port such as telephone modem, cable modem, digital subscriber line (DSL) modem, devices with embedded software operating systems, electronic purse applications, license issuance devices, customer loyalty applications, etc, and in businesses such as in retail shops, hospitals, oil and gas businesses, government agencies, etc.

ADVANTAGE - Enables to collect, reconcile and process labor resource data at a business location through an electronic transaction device.
      device.
      DESCRIPTION OF PRAWING(S) - The figure shows the block diagram of the labor source data recording system.
            local device (210)
            intermediate/server (214)
            host system/(220)
            internet (2/40)
            end user (260)
            pp; 7 DwgNo 2/3
Title Terms: EMPLOY; TIME; RECORD; KEEP; METHOD; EMPLOY; POINT; SALE; TERMINAL; GENERATE; TIME; RECORD; RECORD; CLOCK; CLOCK; TIME; IDENTIFY; EMPLOY; TRANSMIT; GENERATE; RECORD; HOST; SERVE
Derwent Class: T01; T05
International Patent Class (Main):
                                                     G06F-017/60
File Segment: EPI
 7/5/2
                (Item 2 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
015710891
                   **Image available**
WPI Acc No: 2003-773091/200373
XRPX Acc No: N03-619563
```

4.

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information and number of purchased product stored in non-contact
   integrated circuit card and host, during delivery of purchased product
Patent Assigner: MATSUSHITA DENKI SANGYO KK (MATU )
Number of Countries: 001 Number of Patents: 001
Patent Family:
                     Kind
Patent No
                                           Applicat No
                                                                 Kind
                                                                           ∕Ďate
                                                                                        Week
                               Date
                            20031003 JP 200278385
                                                                        20020320
                                                                                       200373 B
JP 2003281453 A
                                                                  Α
Priority Applications (No Type Date): JP 200278385 A 20020320
Patent Details:
Patent No Kind Lan Pg
                                    Main IPC
                                                      Filing/Notes
                           11 G06F-017/60
JP 2003281453 A
Abstract (Basic): 3P 2003281453 A
            NOVELTY - A non-contact integrated circuit (IC) card reader/writer
      (3) connected to a personal digital assistant (PDA) (1) or personal computer (2), writes payment information and number of purchased product in a non-contact IC card (4). The product is delivered to the user, after verifying payment information stored in the card and the host (5).

USE - For online shopping.

ADVANTAGE - Prevents forgery by verifying payment information
      ADVANTAGE - Prevents forgery by verifying payment information and number of purchased product stored in non-contact integrated circuit card and host, during delivery of the purchased product.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the goods receipt statem. (Drawing includes non-English language)
      the goods receipt system. (Drawing includes non- English language
      text).
             PDA
                    (1)
           personal computer (2)
non-contact IC card reader-writer (3)
non-contact IC card (4)
           host (5)
           pp; 11 DwgN/o 1/1
Title Terms: GOODS, RECEIPT; SYSTEM; SHOPPING; VERIFICATION; PAY; INFORMATION; NUMBER; PURCHASE; PRODUCT; STORAGE; NON; CONTACT; INTEGRATE; CIRCUIT; CARD; HOST; DELIVER; PURCHASE; PRODUCT
Derwent Class: T/01; T04; T05
International Patent Class (Main): G06F-017/60
International Patent Class (Additional): G06K-017/00; G07G-001/12
File Segment: EPI
 7/5/3
                (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
                  **Image available
015645502
WPI Acc No: 2003-707685/200367
Related WPT Acc No: 2000-147871; 2000-147872; 2000-182788; 2000-223699;
   2003-656977; 2003-707787; 2003-800109
XRPX Acc No: N03-565377
  Electronic commerce terminal displays incentive-based advertisement
  according to user selection and re-authorizes user, if authorization
  limit exceeds predetermined level
Patent Assignee: USA TECHNOLOGIES INC (NSTE-N)
Inventor: KOLLS H B
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No
                    Kind
                              Date
                                          Applicat No
                                                                Kind
                                                                          Date
                                                                                       Week
US 6601040
                     B1 20030729
                                          US 9893475
                                                                                      200367 B
                                                                 Р
                                                                       19980720
                                          US 99293129
                                                                       19990416
                                          US 99293358
                                                                       19990416
                                          US 99334815
                                                                 Α
                                                                       19990617
                                          US 99335327
                                                                       19990617
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100

Goods receipt system for online shopping, verifies payment

November 24, 2003

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A 19990716
                                               US 99354803
Priority Applications (No Type Date): US 9893475 P 19980720; US 99293129 A
   19990416; US 99293358 A 19990416; US 99334815 A 19990617; US 99335327 A
   19990617; US 99354803 A 19990716
Patent Details:
Patent No Kind Lan Pg
                                        Main IPC
                                                            Filing Notes
                                                            Provisional application US 9893475
US 6601040
                                62\G06F-017/60
                      В1
                                                            CIP of application US 99293129
                                                            CIP of application/US 99293358
                                                            CIP of application US 99334815
                                                            CIP of application US 99335327
Abstract (Basic): US 6601040 B1
             NOVELTY - A controller provides interfage between vending machine
      and portable communication device, based on input user identification
       ( ID ). A storage unit stores incentive-based advertisement term which
      is delivered to user based on term selected by user. An error condition is output based on non-usage time of the terminal and reauthorization
      of user, is performed to reprocess transaction data, if authorization limit exceeds preset level.

USE - Electronic commerce terminal communicates with portable
      communication device e.g. personal digital assistant (PDA), pager, cellular phone, and personal computer for communicating and transacting with vending machine e.g. copier, printer, facsimile,
     laptop/palmtop printer, data ports, notebook computer, microfiche device, projector, scanner, camera, modem in business center, hotel through Internet, telecommunication line e.g. international digital standard network (IDSM), asynchronous digital subscriber line (ADSL), very small aperture terminal (VSAT) satellite.
      ADVANTAGE - Enables accessing and synchronizing portable and fixed data resource, network resource e.g. Internet resource and file contents while transacting business in public place.

DESCRIPTION OF DRAWING(S) The figure shows the flowchart explaining the business transaction process.
            pp; 62 WwgNo 13/28
Title Terms: EZECTRONIC; TERMINAL; DISPLAY; BASED; ADVERTISE; ACCORD; USER;
   SELECT; AUTHORISE; USER; AUTHORISE; LIMIT; PREDETERMINED; LEVEL
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Derwent Class: T01; T05

International Patent Class (Main): GO6F-017/60

File Segment: EPI

(Item 4 from file: 350) DĮALOG(R)File 350:Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv.

\*\*Image available\*\* 015514487 WPI Acc No: 2003-576634/200354

XRPX Acc No: N03-458340

authorization method in e.g. departmental Commercial transaction store, involves verifying transaction -related information and requesting transaction confirmation on receiving verification approval signal

Patent Assignee: JIMMY NG K H (NGKH-T); VENKATESH N P (VENK-I)

Inventor: JIMMY NG K H; VENKATESH N P

Number of Countries: 001 Number of Patents: 001

Patent Family:

US 20030083945 A1

Applicat No Patent No Kind Date Kind Date US 20030083945 A1 20030501 /US 200145418 Α 20011026 200354 B

Priority Applications (No Type Date): US 200145418 # 20011026 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes 7 **4**06F-017/60

Search performed by Sylvia Keys November 24, 2003

Abstract (Basic): US 20030083945 A1

NOVELTY - Transaction-related information including an account identifier is received, accessed and verified with the account. An approval signal is generated upon satisfactory verification and a communication device associated with the account is contacted. Transaction confirmation is requested from the device. Commercial transaction is authorized on receiving the approval signal and the transaction confirmation.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) transaction system; and
- (2) communication device.

USE - For authorizing commercial transaction with respect to user using debit card, credit card, or communication device (claimed) such as mobile phone, personal digital assistant ), two-way pager, for purchasing items in department store, shop, restaurant.

ADVANTAGE - Security of commercial transaction authorization is increased, since transaction system authorizes the transaction only after confirmation.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining commercial transaction authorization method.

pp; 7 DwgNo 2/2

Title Terms: COMMERCIAL; TRANSACTION; AUTHORISE; METHOD; DEPARTMENT; STORAGE; VERIFICATION; TRANSACTION; RELATED; INFORMATION; REQUEST; TRANSACTION; CONFIRM; RECEIVE; VERIFICATION; APPROVE; SIGNAL

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-017/60 International Patent Class (Additional): G07G-001/00

File Segment: EPI

#### (Item 5 from file: 350) 7/5/5 DIALOG(R) File 350: Derwent WPIX

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015438994 \*\*Image available\*\* WPI Acc No: 2003-501136/200347

System for distributing and managing oil by oil purchase exclusive card

Patent Assignee: SUNG J Y (SUNG-I)

Inventor: JIN H J:⊅kUNG J Y

Number of Countries: \(\)001 Number of Patents: 001

Patent Family:

Date Patent No Kind Applicat No Kind Date Week KR 2003019277 A 20030 06 KR 200269749 20021111 Α 200347 B

Priority Applications (No Type Date): KR 200269749 A 20021

Patent Details:

Main \PC Patent No Kind Lan Pg Filing Notes KR 2003019277 A 1 G06F-017X60

Abstract (Basic): KR 2003019277 A NOVELTY - A system for distributing and managing an oil by an oil purchase exclusive card is provided to secure a transparency of an oil transaction by constructing an oil distributing and managing system through an oil purchase exclusive card and a wireless/wire PDA terminal for payment of the oil purchase exclusive card.

DETAILED DESCRIPTION - If a payment is executed through an oil purchase exclusive card(10), a PDA payment terminal(20) receives a seller input information with respect to an oil supply and issues an oil sale bill. A financial **payment** server(40) **approves** a cost with respect to an oil purchase and integrates issuing details of the oil purchase exclusive card(10). A customs server(70) recognizes importation details of oil. A taxation business server(80) receives and

manages payment details and credit card transaction details between a seller and a purchaser from the financial payment server(40). A managing system(60) redeives importation defails and entry details of an oil, receives issuing details of the oil purchase exclusive card(10) and payment details by the oil purchase exclusive card(10), receives payment information inputted through the PDA payment terminal (20), monitors an oil distribution condition in a real time, and performs an integrated analysis. A monitoring server(100) receives an oil distribution condition and an analysis result from the managing system(60), and monitors an oll distribution condition in real time. A web service server(90) makes the oil distribution condition and the analysis result. A mobile communication server(30) is connected to the financial payment server(40), the web service server(90), and the managing system(60) through the **PDA** payment terminal(20) by wireless and executes a wireless relay for requesting a payment or searching various kinds of information. pp; 1 DwgNo 1/10
Title Terms: SYSTEM; DISTRIBUTE; MANAGE; OIL; OIL; PURCHASE; EXCLUDE; CARD Derwent Class: T01;/T05

International Pate/nt Class (Main): \G06F-017/60

File Segment: EPI,

(Item 6 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015430774 \*\*Image available\*\* WPI Acc No: 2003-492916/200346

XRPX Acc No: N03-391604

Payment system for vending machine purchases made through cellular telephone, has auto-attendant that verifies cellular phone user's mode of payment and provides user with authorization code for output to vending machine

Patent Assignee: MACKAY CANADA LTD J J (MACK-N); MACKAY G (MACK-I)

Inventor: MACKAY G

Number of Countries: 003 Number of Patents: 003

句Patent Family:

Kind Kind Week Patent No Date Applicat No Dat.e 0 US 20030078895 A1 US 2001330069 20030424 20011019 200346 B Ρ US 2002273029 Α 20021017

20030419 CA 2408469 CA 2408469 A1 Α 20021017 200346 200348 GB 2383176 20030618 GB 200224262 Α 20021018 Α

Priority Applications (No Type Date): US 2001330069(P 20011019; 2002273029 A 20021017 PM

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes 11 G06F-017/60 US 20030078895 A1 Provisional application US 2001330069

A1 E G07F-007/00 CA 2408469 GB 2383176 G07F-007/00 Α

Abstract (Basic): US 20030078895 A1

NOVELTY - An auto-attendant (3) including a processor (31) and communication module (32), performs two-way communication with the user's cellular phone (4) to receive requests for electronic payment for goods/services. The auto-attendant verifies the user's mode of payment and provides an authorization code to the user. A processor (21) in the vending machine (2), receives the authorization from the user and provides goods/services.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) method of making payments for vending machine purchases;
- (2) method of confirming payment by auto- attendant;

- (3) auto-attendant; and
  - (4) method of providing goods/services by vending machine.
- USE For making payments for vending machine purchases such as confections or services such as parking time, through cellular telephone.

ADVANTAGE - A purchase is authenticated with no direct intervention between the auto-attendant and the vending machine, as the **cellular phone** acts as an intermediary. Hence payment is securely authenticated and payment may be made through **cellular phone**, **credit** card or line of credit.

 ${\tt DESCRIPTION}$  OF DRAWING(S) - The figure shows the schematic view of pay-by-phone system.

vending machine (2)

auto- attendant (3)

user's cellular telephone (4)

processors (21,31)

communication module (32)

pp; 11 DwgNo 1/4

Title Terms: PAY; SYSTEM; VENDING; MACHINE; PURCHASE; MADE; THROUGH; CELLULAR; TELEPHONE; AUTO; ATTEND; VERIFICATION; CELLULAR; TELEPHONE; USER; MODE; PAY; USER; AUTHORISE; CODE; OUTPUT; VENDING; MACHINE

Derwent Class: T01; T05; W01; W02

International Patent Class (Main): G06F-017/60; G07F-007/00

International Patent Class (Additional): G08C-017/02; H04L-012/16; H04Q-007/20

File Segment: EPI

### 7/5/7 (Item 7 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015317645 \*\*Image available\*\*
WPI Acc No: 2003-378580/200336

## System and method for settling parking fee by using electronic payment device

Patent Assignee: SAMSUNG CARD CO LTD (SMSU

Inventor: HUH J G; JUNG H J; PARK S C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week KR 2003006327 A 20030123 KR 200142039 A 20010712 200336 B

Priority Applications (No Type Date): KR 200142039 A 20010712

Patent Details:

Patent No Kind Lan Pg Main IPC Filling Notes

KR 2003006327 A 1 G06F-019/00

Abstract (Basic): KR 2003006327 A

NOVELTY - A parking fee settlement system and method are provided to simply settle parking fees by using a **credit card** or an electronic money.

DETAILED DESCRIPTION - The system comprises a payment device(10), a server(12) and a parking fee settlement device(14). The payment device(10) stores personal credit card data and performs a payment function. The personal credit card data includes a card number, a card issue date and a card expiration date. The payment device(10) can be a magnetic card, an IC fard, a mobile phone or a PDA. The parking fee settlement device(14) receives the credit card data from a customer who owns the payment device(10), and transmits the credit card data and a car entrance time to the server(12). The device(14) includes a credit data reader which can read the credit data from the magnetic card or the fC card, or a module which can receive the credit data from the mobile phone or the PDA over a wireless LAN(Local Area Network). The device(14) transmits the credit card data to the

A

server(12), receives data on a discount of a parking fee and settles the final parking fee when the customer exits a parking place. The server(12) stores the personal credit card data and the car entrance time transmitted by the device (14) at a database, and also data on a discount of a parking fee determined according to a goods purchase amount. The server(12) transmits a credit card payment approval request to a payment sérver. pp; 1 DwgNo 1/10 Title Terms: SYSTEM; METHOD; SETTLE, PARK; FEE; ELECTRONIC; PAY; DEVICE Derwent Class: T01; T05 International Patent Class (Majn): G06F-019/00 File Segment: EPI

7/5/8 (Item 8 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. \*\*Image available\*\* 015268729 WPI Acc No: 2003-329658/200331 XRPX Acc No: N03-263773

Access management method for computer service involves permitting access to software applications and to input/output devices of computer, after obtaining payment authorization of user

Patent Assignee: CHANDAR R (CHAN-I); JOGALEKAR/M M (JOGA-I)

Inventor: CHANDAR R; JOGALEKAR M M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Applicat No Kind Date Kind Week US 20030004886 A1 20030102 US 2001895760 20010629 Α 200331 B

Priority Applications (No Type Date): US 2001895760 A 20010629 Patent Details: Main IPC Patent No Kind Lan Pg Filing Notes 10 G06F-017/60 US 20030004886 A1

Abstract (Basic): US 20030004886 A1

NOVELTY - The access/to desktop or web-based software applications and to input/output devices (26) of computer are permitted only after obtaining the payment/ authorization of the user, through credit card or bank-issued debit card.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) selective áccess management method;
- (2) selective/access computer system;
- (3) computer/readable medium for storing access managing program;
  - (4) computer user interface.

USE - For managing access of services of computer system (claimed) such as notebook computer, personal digital assistant ( PDA ) located in air ports, retail shopping center, library, etc.

ADVANTAGE - The user pays for the computer services through credit card , thereby eliminating the necessity for supervisor or cashier to manage the //computer system and/or receive payment for service.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of public access computing system.

input//output devices (26)

pp; 10 DwgNo 1/4
Title Terms: ACCESS; MANAGEMENT; METHOD; COMPUTER; SERVICE; PERMIT; ACCESS; SOFTWARE; APPLY; INPUT; OUTPUT; DEVICE; COMPUTER; AFTER; OBTAIN; PAY; AUTHORISE; USER

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-017/60

File Segment: EPI



7/5/9 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015238275 \*\*Image available\*\*

WPI Acc No: 2003-299201/200329

XRPX Acc No: N03-237985
Multi-application terminal e.g. kiosk in e-payment environment, has
payment and non-payment applications which provide payment and
non-payment related e-services over secured financial network and open
network

Patent Assignee: RITSCHEL K (RITS-I); TAYLOR S (TAYL-I); VILLARET J (VILL-I)

Inventor: RITSCHEL K; TAYLOR S; VILLARET J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20020194135 A1 20021219 US 2001882625 A 20010615 200329 B

Priority Applications (No Type Date): US 2001882625 A 20010615 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes US 20020194135 A1 6 G06F-017/60

Abstract (Basic): US 20020194135 A1

NOVELTY - A memory management unit (120) assigns a protected region within a memory (130) to payment and non-payment applications being executed by a processor. The payment and non-payment applications provide payment and non-payment related e-services over a secured financial network and an open network.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Service provision method; and

(2) Credit card verification provision system.

USE - Multi-application terminal e.g. POS terminal, kiosk, payment device, peripheral device i.e. publicly accessible device using private hand-held or portable device such as cell phone, beeper, two-way radio, smart phone, communicator, personal digital assistant (PDA) in e-payment or retail environment. Using network such as telephone network wireless, local area network (LAN), wide area network (WAN), intranet, world wide web (internet) and wired cable transmission system. For processing electronics payment i.e. credit card authorization, check authorization, etc., to support eservices e.g. e-reservation service for restaurant, purchase tickets for concert, sporting event, movies.

ADVANTAGE - Enables the developers or merchants to perform partial downloads of the new application or required functions, rather than a large, monolith piece of code, thereby saving amount of time and money an minimizing inconvenience to the merchant's customers. Since individual application can remain physically separate and not be linked into a single piece of code, no additional certifications are required for an existing application, when adding or changing payment-related or non-payment application. Utilizes hardware/software application separation mechanism that permits applications to safely exist side-by-side without corrupting one another.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the multi-application terminal within e-payment environment.

Memory management unit (120)

Memory (130)

pp; 6 DwgNo 1/1

Title Terms: MULTI; APPLY; TERMINAL; KIOSK; PAY; ENVIRONMENT; PAY; NON; PAY; APPLY; PAY; NON; PAY; RELATED; SERVICE; SECURE; FINANCIAL; NETWORK; OPEN; NETWORK

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-017/60
File Segment: EPI

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7/5/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015238272 \*\*Image available\*\*
WPI Acc No: 2003-299198/200329

XRPX Acc No: N03-237982

Asset secured credit application processing method involves receiving secured credit approval from decision maker through signal received by wireless communication device

Patent Assignee: UNION ENERGY INC (UNEN-N); NASSAR J Z (NASS-I)

Inventor: NASSAR J Z

Number of Countries: 002 Number of Patents: 002

Patent Family:

Applicat No Patent No Kind Date Kind Date Week 20021219 US 2001881034 20010615 US 20020194118 A1 A 200329 B A1 20021215 CA 2350867 20010615 200353 N CA 2350867 Α

Priority Applications (No Type Date): US 2001881034 A 20010615; CA 2350867 A 20010615

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020194118 A1 16 G06F-017/60 CA 2350867 A1 E G06F-017/60 Abstract (Basic): US 20020194118 A1

NOVELTY - An applicant identification information entered into a wireless communication device such as personal digital assistant (PDA) is transmitted to a decision maker who approves secured credit requests, through a signal transmitted by the PDA. The decision from the decision maker is received through a signal received by the wireless communication device.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for asset secured credit transaction approval securing method.

USE - For processing asset secured credit application for product such as cars, refrigerator, appliances, heater, air conditioners from buyers through finance companies.

ADVANTAGE - Allows transmission of application information entered at any location, to a wireless device of the decision maker and reception of credit approval from the decision maker, by the use of wireless communication device. Hence enables to complete and process application for credit at the customer's home or place of business.

DESCRIPTION OF DRAWING(S) - The figure shows the flow diagram of asset secured credit application processing method.

pp; 16 DwgNo 4/7

Title Terms: SECURE; CREDIT; APPLY; PROCESS; METHOD; RECEIVE; SECURE; CREDIT; APPROVE; DECIDE; MAKER; THROUGH; SIGNAL; RECEIVE; WIRELESS; COMMUNICATE; DEVICE

Derwent Class: T01

International Patent Class (Main): G06F-017/60

International Patent Class (Additional): H04L-012/16; H04Q-007/22

File Segment: EPI

#### 7/5/11 (Item 11 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015225105 \*\*Image available\*\*
WPI Acc No: 2003-286017/200328

System and method for business management/electronic payment by using pda

Patent Assignee: IMNETPIA CO LTD (IMNE-N)

Inventor: JANG S W; PARK J H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week KR 2002091015 A 20021205 KR 200270025 A 20021112 200328 B

Priority Applications (No Type Date): KR 200270025 A 20021112

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

KR 2002091015 A 1 G06F-017/60

Abstract (Basic): KR 2002091015 A

NOVELTY - A system and a method for the business management/electronic payment by using a PDA ( Personal Digital Assistant ) are provided to make the participants of a transaction easily use a business management/electronic payment service by employing the PDA in a CDMA(Code Division Multiple Access)-2000 communication network.

DETAILED DESCRIPTION - The PDA (100) has an electronic payment program and a mobile business management program. A request for the electronic payment and a result of an approval are displayed on the PDA. The request for the real time article information and the result of the request are displayed on the PDA. An enterprise server(400) connected to a PDA gateway server(300) receives the payment information, accepts the request for the information about the orders/stockpile/customers/articles, and transmits the result of the request. An electronic payment server(500) transmits the payment request information to a VAN server(600) and the approval information of the VAN server to the PDA gateway server. An encryption/decryption and authentication server(700) encodes or decodes the information about the payment and the business management. A credit card company server(800) and a bank sever(900) transmit the result of the approval to the VAN server.

pp; 1 DwgNo 1/10

Title Terms: SYSTEM; METHOD; BUSINESS; MANAGEMENT; ELECTRONIC; PAY

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

7/5/12 (Item 12 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015160209

WPI Acc No: 2003-220737/200321

Related WPI Acc No: 1998-333677; 2001-102124; 2001-501645; 2002-267483;

2002-740281

XRPX Acc No: N03-176151

User transaction permission method using ATM, involves utilizing phone number or pin number to cause call to be placed to cellular phone of user to authorize charge card transaction, based on detected merchant card usage

Patent Assignee: WANG Y P (WANG-I); ESIGN CORP (ESIG-N)

Inventor: WANG Y P

Number of Countries: 102 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20030004827 A1 20030102 US 9867176 A 19980427 200321 B

US 99260384 A 19990302 US 200257465 A 20020125

WO 200365318 A2 20030807 WO 2002US38377 A 20021203 200361

Priority Applications (No Type Date): US 200257465 A 20020125; US 9867176 A

. 19980427; US 99260384 A 19990302 Patent Details: Patent No Kind Lan Pg Filing Notes Main IPC US 20030004827 A1 28 G06F-017/60 CIP of application US 9867176 CIP of application US 99260384 CIP of patent US 6282656 WO 200365318 A2 E G07F-007/00 Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM Abstract (Basic): US 20030004827 A1 NOVELTY - The use of a merchant card at a central processing area is detected. A phone number or a pin number to cause a call to be placed to a cellular phone of a user to authorize the charge card transaction , is utilized based on detection result. A report of the user charge card transaction is transmitted to the cellular phone and approval of the transaction to a merchant's charge card terminal is authorized. USE - For permitting user to conductor charged card transaction using ATM, point of sale system, etc. ADVANTAGE - The confidentiality of the user identification data and user private key are enhanced, thus integrity of transaction approval process is improved. pp; 28 DwgNo 0/12 Title Terms: USER; TRANSACTION; PERMIT; METHOD; ATM; UTILISE; TELEPHONE; NUMBER; PIN; NUMBER; CAUSE; CALL; PLACE; CELLULAR; TELEPHONE; USER; AUTHORISE; CHARGE; CARD; TRANSACTION; BASED; DETECT; MERCHANT; CARD Derwent Class: T01; T05; W01 International Patent Class (Main): G06F-017/60; G07F-007/00 File Segment: EPI 7/5/13 (Item 13 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 014939369 WPI Acc No: 2002-760078/200282 XRPX Acc No: N02-598429 Network-based transaction method for e-commerce application, involves verifying customer details and accordingly authorizing goods transaction Patent Assignee: MOBILE SOLUTIONS & PAYMENT SERVICES PTE (MOBI-N) Inventor: MONAGHAN S Number of Countries: 100 Number of Patents: 001 Patent Family: Patent No Kind Date Applicat No Kind Date Week WO 200286829 A1 20021031 WO 2002SG59 20020412 200282 B Α Priority Applications (No Type Date): US 2001283993 P 20010416 Patent Details: Patent No Kind Lan Pg Main IPC, Filing Notes WO 200286829 A1 E 48 GØ7F-019/00 Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU \$D SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW Designated States/(Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR

Abstract (Basic): WO 200286829 A1

NOVELTY - The purchase details comprising purchase value and consumer details are forwarded to a processor (8) for verification. The verified purchase details are transferred to the financial institution (5) where the customer has an account for authorization of transaction . The funds are transferred from the customer's account to the merchant's financial institution (7) based on authorization.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for goods transaction facilitating system.

USE - For performing transaction between the consumer and the

merchant for e-commerce applications using mobile phone, PDA, in Internet business environment.

ADVANTAGE - Reduces the necessity for confidential information to be forwarded to the institution and the merchant during payment. Reduces the risk of misuse of the credit cards . pp; 48 DwgNo 0/23

Title Terms: NETWORK; BASED; TRANSACTION; METHOD; APPLY; VERIFICATION; CUSTOMER; DETAIL; ACCORD; AUTHORISE; GOODS; TRANSACTION

Derwent Class: T01; T05; W01

International Patent Class (Main): G07F-019/00

International Patent Class (Additional): G06F-017/60; G07F-007/10 File Segment: ÉPI

7/5/14 (Item 14 from file: 350)
DIALOG(R) Fi/le 350: Derwent WPIX

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014929213 \*\*Image available\*\* WPI Acc No: 2002-749922/200281

XRPX Acc No: N02-590599

Financial transaction authorization method involves transmitting payment message including vendor ID and payment amount from customer's wireless device to authorizing entity

Patent Assignee: BAGOREN S I (BAGO-I); OZULKULU E S (OZUL-I); SERBETCIOGLU B S (SERB-I); TELENITY ILETISIM SISTEMLERI AS (TELE-N)

Inventor: BAGOREN S I; OZULKULU E S; SERBETCIOGLU B S

Number of Countries: 093 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date 20020822 US 2001789077 A US 20020116329 A1 20010220 200281 B A2 20021017 WO 2002IB1931 WO 200282393 Α 20020214

Priority Applications (No Type Date): US 2001789077 A 20010220 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020116329 A1 9 G06F-017/60

WO 200282393 A2 E G07F-019/00

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CO CR CU CZ DE DK EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20020116329 A1

NOVELTY - A payment message including a vendor ID which does not require pre- authorization by the customer (12) and payment amount, is transmitted to an **authorizing** entity (16) from a customer's wireless device. The **authorizing** entity transmits a **payment** authorization to a vendor (10), after processing the payment message.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for financial transaction authorization system.

credit/debit account transactions between vendor and customer using wireless device such as cellular telephone, PDA, pager. ADVANTAGE - The security of credit/debit account transactions is improved and hence privacy of the customer is enhanced. DESCRIPTION OF DRAWING(S) - The figure explains the financial authorization method. transaction Vendor (10) Customer (12) Authorizing entity (16) pp; 9 DwgNo 2/6 Title Terms: FINANCIAL; TRANSACTION; AUTHORISE; METHOD; TRANSMIT; PAY; MESSAGE; VENDING; ID; PAY; AMOUNT; CUSTOMER; WIRELESS; DEVICE; AUTHORISE; ENTITY Derwent Class: T01; T05; W01 International Patent Class (Main): G06F-017/60; G07F-019/00 File Segment: EPI (Item 15 from file: 350) 7/5/15 DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. \*\*Image available\*\* 014919574 WPI Acc No: 2002-740281/200280 Related WPI Acc No: 1998-333677; 2001-102124; 2001-501645; 2002-267483; 2003-220737 XRPX Acc No: N02-583244 Internet-based secure message reception method involves decrypting digital data representing secure message if share secret is found in share secret table in portable electronic authorization device Patent Assignee: WANG Y P (WANG-I); ESIGN CORP (ESIG-N) Inventor: WANG Y P Number of Countries: 102 Number of Patents: 002 Patent: Family: Patent No Date Applicat No Kind Kind Date US 20020123967 A1 20020905 US 9867176 Α 19980427 200280 B US 20.0126848 20011221 WO 200381377 A2 20031002 WO 2002US40616 A 20021218 Priority Applications (No Type Date): US 200126848 A 20011221; US 9867176 A **1**9980427 Patent Details: Patent No Kind Lan Pg Main IPC/ Filing Notes US 20020123967 A1 29 G06F-017/60 CIP of application US 9867176 CIP of patent US 6282656 G06F-000//00 WO 200381377 A2 E Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM/DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS 1/U MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM Abstract (Basic): US 20020123967 A1 NOVELTY - A share secret is searched from a share secret table in a portable electronic authorization device (PEAD) (200). Received digita / data representing a secure message, is decrypted, if the share secret is found otherwise a share secret is computed in the DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (1) Internet-based secure message transmission method; and

. USE - For authorizing financial transactions such as

(2) Internet-based secure message exchanging method.

USE - For receiving a secure message pertaining to an electronic transaction conducted over Internet.

ADVANTAGE - Allows transaction approvals to occur within the portable electronic authorization device ( PEAD ), hence enhances the confidentiality of the user identification data and the user's private key and enhances the integrity of the transaction process.

DESCRIPTION OF DRAWING(S) - The figure shows a portable electronic authorization device.

Portable electronic authorization device (200)

pp; 29 DwgNo 2/12

Title Terms: BASED; SECURE; MESSAGE; RECEPTION; METHOD; DIGITAL; DATA; REPRESENT; SECURE; MESSAGE; SHARE; SECRET; FOUND; SHARE; SECRET; TABLE; PORTABLE; ELECTRONIC; AUTHORISE; DEVICE

Derwent Class: T01; T05

International Patent Class/(Main): G06F-000/00; G06F-017/60

File Segment: EPI

#### 7/5/16 (Item 16 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014892279 \*\*Image available\*\* WPI Acc No: 2002-712985/200277

XRPX Acc No: N02-562507

On-line business transaction method for electronic banking, stock trading, involves transmitting unique identification trait of consumer while establishing transaction between consumer and provider

Patent Assignee: LUDTKE H A (LUDT-I); MARITZEN L M (MARI-I)

Inventor: LUDTKE H A; MARITZEN L M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20020128980 A1 20020912 US 2000255004 A 20001212 200277 B
US 200114112 A 20011211

Priority Applications (No Type Date): US 2000255004 P 20001212; US 200114112 A 20011211

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 20020128980 Al 17 G06F-017/60 Provisional application US 2000255004

Abstract (Basic): US 20020128980 A1

NOVELTY - A communication link is established between a consumer terminal (202) and a provider's terminal (212) through a network (204), and a transaction is established by entering the related information. An information and a signal corresponding to an unique ID trait (UIT) such as fingerprint, retina pattern, iris pattern of the consumer are transmitted to the provider's terminal from the consumer terminal while establishing transaction.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for communication device.

USE - For business transaction such as electronic banking, stock trading, goods purchasing, service provision through Internet using communication device, such as wireless device e.g. PDA, cellphone, satellite broadcasting set-top box, portable computer with a wireless modem, wired device e.g. point-of-sale terminal, PC server, ATM machine, cable set-top box or land-line telephone.

ADVANTAGE - Secure transaction is conducted by verifying the identity of a transaction party. Hence burdens imposed upon consumers or other transaction parties are decreased.

DESCRIPTION OF DRAWING(S) - The figure shows the business transaction establishment system.

. Consumer terminal (202)
 Network (204)
 Provider's terminal (212)

pp; 17 DwgNo 1/8

Title Terms: LINE; BUSINESS; TRANSACTION; METHOD; ELECTRONIC; BANK; STOCK; TRADE; TRANSMIT; UNIQUE; IDENTIFY; TRAIT; CONSUME; ESTABLISH; TRANSACTION; CONSUME

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-017/60

File Segment: EPI

#### 7/5/17 (Item 17 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014786797 \*\*Image available\*\*
WPI Acc No: 2002-607503/200265
XRPX Acc No: N02-481084

Credit card data processing method for portable digital assistant, involves authorizing transaction corresponding to credit card, by inputting electronic signature through touch screen

Patent Assignee: ORTIZ L M (ORTI-I)

Inventor: ORTIZ L M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20020077974 A1 20020620 US 2000740626 A 20001219 200265 B

Priority Applications (No Type Date): US 2000740626 A 20001219 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020077974 A1 19 G06F-017/60

Abstract (Basic): US 20020077974 A1

NOVELTY - The data are read from a **credit card** using a **credit card** reader that is integrated with a wireless hand held device. A user inputs an electronic signature through a touch screen integrated with the hand held device, to **authorize** a **transaction** corresponding to the **credit card**.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Credit card data processing system; and
- (2) Wireless hand held device.

USE - For electronic hand held devices such as **personal digital assistant** ( **PDA** ), wireless telephone, pager, mobile storage and computing device, desktop personal computer, WAP-enabled mobile phone, electronic tablet.

ADVANTAGE - Conducts economic transactions using hand held devices effectively. Enables wireless economic transactions very efficiently. Enables wireless point of sale. Permits the **credit card** holders to input electronic signature associated with **credit card** transactions. Enables transfer of electronic receipt to user's e-mail account associated with the **credit card**. Enables user to use the **credit card** any time using the mobile telephone.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart of operations for processing  ${f credit}$   ${f card}$  transaction through the wireless hand held device.

pp; 19 DwgNo 9/9

Title Terms: CREDIT; CARD; DATA; PROCESS; METHOD; PORTABLE; DIGITAL; ASSIST; AUTHORISE; TRANSACTION; CORRESPOND; CREDIT; CARD; INPUT; ELECTRONIC; SIGNATURE; THROUGH; TOUCH; SCREEN

Derwent Class: T01; T04; T05

International Patent Class (Main): G06F-017/60

File Segment: EPI

7/5/18 (Item 18 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014756831 \*\*Image available\*\*
WPI Acc No: 2002-577535/200262
XRPX Acc No: N02-458011

Mobile communication system for commercial transactions, verifies user information and available credit card value input from mobile telephone of user, in response to user's request for transaction

Patent Assignee: ACE CARD LTD (ACEC-N)

Inventor: DARBARI S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week GB 2370904 A 20020710 GB 2001448 A 20010108 200262 B

Priority Applications (No Type Date): GB 2001448 A 20010108

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

GB 2370904 A 13 G07F-007/10

Abstract (Basic): GB 2370904 A

NOVELTY - A mobile telephone operates with a SIM card that stores a pre-paid application software and the total available credit of the user. A central station makes a call to the mobile telephone on receipt of user's request for a transaction. The station authenticates the user input information and SIM card value to enable transaction.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for transaction verification method.

USE - For commercial transactions such as purchase of goods and/or services through mobile telephones,  $\mbox{PDA}$ , etc.

ADVANTAGE - Maintains record of the credit balance and/or transactions in the phone effectively. Improves financial mobility and improves security of cash equivalents associated with the mobile communication.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic overview of the mobile communication system.

pp; 13 DwgNo 1/2

Title Terms: MOBILE; COMMUNICATE; SYSTEM; COMMERCIAL; TRANSACTION; VERIFICATION; USER; INFORMATION; AVAILABLE; CREDIT; CARD; VALUE; INPUT; MOBILE; TELEPHONE; USER; RESPOND; USER; REQUEST; TRANSACTION

Derwent Class: T01; T05; W01

International Patent Class (Main): G07F-007/10

International Patent Class (Additional): G06F-017/60; G07F-007/08

File Segment: EPI

## 7/5/19 (Item 19 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014754143 \*\*Image available\*\*
WPI Acc No: 2002-574847/200261

XRPX Acc No: N02-455729

Payment method for e-commerce, involves receiving customer code and merchant code by financial institution and providing authorization code to merchant for transaction after reception of transaction code from customer

Patent Assignee: LU H (LUHH-I)

Inventor: LU H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Applicat No Patent. No Kind Date Kind Date Week US 20020082986 A1 20020627 US 2000746478 Α 20001226 200261 B

Priority Applications (No Type Date): US 2000746478 A 20001226

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20020082986 A1 10 G06F-017/60

Abstract (Basic): US 20020082986 A1

NOVELTY - A customer code and a transaction code are provided to customer and a merchant code is provided to merchant by financial institution. The customer code and merchant code are received by financial institution through mobile telephone, when the transaction is to be provided. An authorization code is provided to merchant for transaction to the customer, after the reception of transaction code from customer.

USE - For making payment in e-commerce through mobile telephone or PDA .

ADVANTAGE - The burden of loss of money either to customer or to the merchant is prevented by providing transaction based on customer code and merchant code. Performs card-free transaction by wireless transmission. By using separate secure codes, the fear of codes being copied is prevented and hence the customer's right is secured. The merchant is prevented from receiving forged card or signature. Hence, provides safe, advanced and convenient payment mechanism for both the customer and the merchant.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the payment mechanism in the transaction identification center. pp; 10 DwgNo 4/5

Title Terms: PAY; METHOD; RECEIVE; CUSTOMER; CODE; MERCHANT; CODE; FINANCIAL; INSTITUTION; AUTHORISE; CODE; MERCHANT; TRANSACTION; AFTER; RECEPTION; TRANSACTION; CODE; CUSTOMER

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-017/60

File Segment: EPI

# (Item 20 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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\*\*Image available\*\* 014585122 WPI Acc No: 2002-405826/200244

XRPX Acc No: N02-318690

Computer program product for enabling smart card usage for internet commerce, adds authentication authorization information payment message corresponding to transaction

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC ); IBM CORP (IBMC )

Inventor: LINEHAN M H

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date AU 200161882 Α 20020307 AU 200161882 Α 20010817 200244 B CN 1340784 20020320 CN 2001125140 Α Α 20010830 200246

Priority Applications (No Type Date): US 2000653078 A 20000831

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

AU 200161882 A 66 G06F-017/60

CN 1340784 G06F-017/60 A

Abstract (Basic): AU 200161882 A

NOVELTY - An authentication authorization for the transaction is obtained directly from the issuer of the smart card (200) through the consumer device and verified. The authorization information is

added to the **payment** message corresponding to the transaction and sent from the consumer device to the merchant (225).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) System for enabling use of smart cards by consumer devices;
- (b) Method for enabling use of smart cards by consumer devices;
- (c) Method for using smart cards to perform trusted transaction

USE - For enabling usage of smart cards by consumer devices such as personal computer (PC), set-top boxes used for cable or satellite television access, video phones, cellular phones and **personal digital assistant** (**PDA**) in networking environment for internet commerce.

ADVANTAGE - Reduces the exposure of the consumer's account number which reduces the potential for theft by unscrupulous employees working at the merchant location by sending the authorization information along with the payment message to the merchant. The authorization simplifies the payment protocol and permits much of the consumer function to be operated remotely by the issuing bank. Increases efficiency of authorizing smart card transactions for internet on-line shopping by directly connecting the consumers to the smart card issuer.

DESCRIPTION OF DRAWING(S) - The figure shows the integration of EMV and 4-party protocol environment.

Smart card (200) Merchant (225)

pp; 66 DwgNo 2/7

Title Terms: COMPUTER; PROGRAM; PRODUCT; ENABLE; SMART; CARD; ADD; AUTHENTICITY; AUTHORISE; INFORMATION; PAY; MESSAGE; CORRESPOND; TRANSACTION

Derwent Class: T01; T05; W01; W03

International Patent Class (Main): G06F-017/60

International Patent Class (Additional): G07F-019/00; H04L-009/00

File Segment: EPI

## 7/5/21 (Item 21 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014573086 \*\*Image available\*\* WPI Acc No: 2002-393790/200242

XRPX Acc No: N02-308770

Authenticating e-commerce transaction by generating transaction

identification number and prompting user to enter authentication code

Patent Assignee: MYESPACE.NET PRIVATE LTD (MYES-N)

Inventor: CHANDRAMOULI B

Number of Countries: 094 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week A1 20020307 WO 2001IN102 20010521 WO 200219614 Α 200242 AU 200176651 Α 20020313 AU 200176651 A. 20010521 200249

Priority Applications (No Type Date): US 2000650433 A 20000829 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200219614 A1 E 63 H04L-009/32

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL

PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200176651 A H04L-009/32 Based on patent WO 200219614

Abstract (Basic): WO 200219614 A1

. NOVELTY - Method consists in prompting the user to enter a transaction ID number, entering the authentication code on a mobile phone and contacting the user via a cell phone, land phone or pager.

DETAILED DESCRIPTION - There is an INDEPENDENT CLAIM for a method of registering a user for secure e-commerce transactions, (2) a system for authorizing and authenticating e-commerce transactions.

USE - Method is for authenticating e-commerce transactions.

ADVANTAGE - Method increases transaction security.

DESCRIPTION OF DRAWING(S) - The figure shows a computing system for the authentication method.

pp; 63 DwgNo 1/6

Title Terms: AUTHENTICITY; TRANSACTION; GENERATE; TRANSACTION; IDENTIFY;

NUMBER ; PROMPT; USER; ENTER; AUTHENTICITY; CODE

Derwent Class: T01; W01; W05

International Patent Class (Main): H04L-009/32

International Patent Class (Additional): G06F-017/60; H04L-029/06

File Segment: EPI

#### 7/5/22 (Item 22 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014518900 \*\*Image available\*\* WPI Acc No: 2002-339603/200237

XRPX Acc No: N02-267047

Making payments over Internet by using authentication agency to create authentication code and using secret identification code for verification

Patent Assignee: PAYPERFECT PTE LTD (PAYP-N)

Inventor: FRANCIS C C W; TAN B T A

Number of Countries: 091 Number of Patents: 002

Patent Family:

Kind Date Applicat No Al 20020228 WO 2000SG120 Patent No Kind Date Week 200237 B WO 200217181 Α 20000822 AU 200070486 A 20020304 AU 200070486 Α 20000822 200247 WO 2000SG120 Α 20000822

Priority Applications (No Type Date): WO 2000SG120 A 20000822 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200217181 A1 E 31 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

AU 200070486 A G06F-017/60 Based on patent WO 200217181

Abstract (Basic): WO 200217181 A1

NOVELTY - Method consists in the payer transmitting details of the payment and an identifier to an Internet server, the server transmitting the payer and payee identifiers and payment amount to an authentication agency. The agency creates an authentication code and transmits it to the communications device (mobile phone, PDA etc.) for the payer, who transmits it back to the agency with a secret ID code for verification of the codes and authorization of the payment

DETAILED DESCRIPTION - There are INDEPENDENT CLAIMS for (1) a method of withdrawing cash from an ATM, (2) a system for authenticating electronic payments.

USE - Method is for e.g. making **credit card** payments over the Internet.

ADVANTAGE - Method is more secure. DESCRIPTION OF DRAWING(S) - The figure shows a technical architecture for the Internet payment method.

pp; 31 DwgNo 8/8

Title Terms: AUTHENTICITY; AGENT; AUTHENTICITY; CODE; SECRET; IDENTIFY;

CODE; VERIFICATION

Derwent Class: T01; T05

International Patent Class (Main): G06F-017/60

International Patent Class (Additional): G06F-157/00; G07F-007/10;

G07F-007/12; G07F-019/00

File Segment: EPI

#### 7/5/23 (Item 23 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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\*\*Image available\*\* 014396015 WPI Acc No: 2002-216718/200227

XRPX Acc No: N02-166181

## Biometric financial transaction method between a consumer and a merchant (e.g. for wired telephones, cellular telephones, PDAs etc., uses an electronic identicator and an access device

Patent Assignee: INDIVOS CORP (INDI-N); VERISTAR CORP (VERI-N)

Inventor: GIOIA P J; KLEEMAN M; LAPSLEY P D

Number of Countries: 096 Number of Patents: 003

Patent Family:

Patent No Applicat No Kind Date Kind Date Week 20011206 WO 2001US17513 A 20010530 200227 B WO 200193167 A1 US 20020019811 A1 20020214 US 2000208680 20000531 200227 P US 2001871241 Α 20010530

20011211 AU 200166628 AU 200166628 Α 20010530 200228 Α

Priority Applications (No Type Date): US 2000208680 P 20000531; US 2001871241 A 20010530

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200193167 A1 E 28 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW US 20020019811 A1 G06F-017/60 Provisional application US 2000208680

G06F-017/60 AU 200166628 A Based on patent WO 200193167

Abstract (Basic): WO 200193167 Al

NOVELTY - Tokenless biometric authorization of an electronic transaction between a consumer (7) and a merchant (1) uses an electronic identicator and an access device (6). A consumer registers with the identicator a registration biometric sample taken from the consumer. The consumer and merchant establish mutual communications (5) via the access device.

DETAILED DESCRIPTION - The merchant proposes a commercial transaction to the consumer via the access device. The access device communicates to the merchant an identification code associated with the access device. After the consumer and merchant have agreed on the transaction, the consumer and the identicator use the access device to establish mutual communications. The access device communicates to the identicator the **identification** code associated with the access device. The identicator compares a bid biometric sample from the consumer with registered biometric sample to try to identify the consumer. Upon successful identification , the identicator

electronically forwards information regarding the consumer to the merchant.INDEPENDENT CLAIM is also included for the following:system for tokenless biometric authorization

USE - For wired telephones, cellular telephones, PDAs etc. ADVANTAGE - Because each transaction is authorized using a biometric received from the consumer's person, the transaction cannot be repudiated, eliminating chargebacks. The invention is convenient for the consumer, in that the third-party identicator handles all financial account information, eliminating the need to recite or otherwise enter card or other account numbers into a telephone or PDA . The use of biometrics and encryption provides security, eliminating the possibility of fraud via intercepting transmissions from the telephone or PDA . The system supports the use of multiple types of financial accounts, providing flexibility for the consumer. Through its superior security and non-repudiation capabilities, the invention justifies a reduced discount rate for the merchant. By using ordinary telephone connections or existing wireless connections, the invention is easy to integrate with existing merchant computer, information, and payment systems. The invention does not require the consumer to use or possess any portable, man-made tokens containing data personalized to the user in order to complete a financial transaction.

DESCRIPTION OF DRAWING(S) - The diagram shows the overall collection of elements comprising the system.

pp; 28 DwgNo 1/4

Title Terms: FINANCIAL; TRANSACTION; METHOD; CONSUME; MERCHANT; WIRE;

TELEPHONE; CELLULAR; TELEPHONE; ELECTRONIC; ACCESS; DEVICE

Derwent Class: S05; T01; T05; W01

International Patent Class (Main): G06F-017/60

File Segment: EPI

## 7/5/24 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014377023 \*\*Image available\*\*
WPI Acc No: 2002-197726/200226

XRPX Acc No: N02-150245

Sales network for on-line transactions, comprises communication device which enables user to authorize payment corresponding to agreement for goods purchased

Patent Assignee: NCR INT INC (NATC ); NCR CORP (NATC )

Inventor: DAVIES J

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No Kind Applicat No Date Kind Date Week GB 2360860 20011003 GB 200010943 Α Α 20000505 200226 B US 20010027425 A1 20011004 US 2001815370 Α 20010322 200226

Priority Applications (No Type Date): GB 20007671 A 20000329

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

GB 2360860 A 32 G06F-001/00 US 20010027425 A1 G06F-017/60

Abstract (Basic): GB 2360860 A

NOVELTY - The network comprises web interface device, web site and communication device. The web interface device and web site enable a user to arrange an on-line agreement for goods purchased and communication device enables user to authorize a payment corresponding to the agreement.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Communication device;
- (b) Web site;

- · (c) Web interface;
  - (d) On-line sale method;
  - (e) Payment method for on-line transactions

USE - For facilitating on-line transaction and shopping using communication devices e.g. automatic teller machine, digital mobile telephone, WAP enabled personal digital assistants, telephone.

ADVANTAGE - As the payment of on-line purchased goods are authorized, the unauthorized use of financial account of user is prevented without disclosing credit card or financial account information relating the user to the merchant and hence providing an efficient on-line shopping.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the goods selling method.

pp; 32 DwgNo 4/4

Title Terms: SALE; NETWORK; LINE; TRANSACTION; COMPRISE; COMMUNICATE; DEVICE; ENABLE; USER; PAY; CORRESPOND; AGREE; GOODS; PURCHASE

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-001/00; G06F-017/60 International Patent Class (Additional): G06F-012/14; G07F-019/00

File Segment: EPI

#### 7/5/25 (Item 25 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014327346 \*\*Image available\*\* WPI Acc No: 2002-148049/200219

XRPX Acc No: N02-112182

User identity verification method for allowing access to computer system, involves reading and comparing reference numbers stored in cell phone and local computer that are linked through direct communication link

Patent Assignee: CELLUSAFE INC (CELL-N)

Inventor: DOR E; DRACH Z

Number of Countries: 097 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200203177 A2 20020110 WO 2001IL618 20010705 Α 200219 B AU 200169409 20020114 AU 200169409 20010705 Α Α 200237 A2 20030528 EP 2001947770 EP 1314076 20010705 Α 200336 WO 2001IL618 Α 20010705

Priority Applications (No Type Date): IL 137181 A 20000705

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200203177 A2 E 65 G06F-001/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200169409 A G06F-001/00 Based on patent WO 200203177

EP 1314076 Based on patent WO 200203177 A2 E G06F-001/00

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200203177 A2

NOVELTY - A direct communication link is provided between a cell phone (15) and a local computer (11). A reference number stored in the cell phone, is read and compared with the reference number stored in a computer, for verifying the identity of a user.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- · (a) Access controlled computer;
  - (b) Local computer;
  - (c) Adapter;
  - (d) Controller;
  - (e) Access controlled digital system;
  - (f) Credit account payment approving method

USE - For verification of identity of user seeking access to computer system including desk top computer, server, workstation, laptop computer, digital processing device and also to TV, domestic or industrial appliance, vending apparatus, cash register in financial, medical or government institutions using cell phone, PDA, pager, radio device, etc., through network e.g. internet, LAN, WAN.

ADVANTAGE - Digital accessing to computer is enabled in a secure manner by authenticating user ID reliably.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of user authentication system.

Local computer (11)

Cell phone (15)

pp; 65 DwgNo 3/9

Title Terms: USER; IDENTIFY; VERIFICATION; METHOD; ALLOW; ACCESS; COMPUTER; SYSTEM; READ; COMPARE; REFERENCE; NUMBER; STORAGE; CELL; TELEPHONE; LOCAL; COMPUTER; LINK; THROUGH; DIRECT; COMMUNICATE; LINK

Derwent Class: T01

International Patent Class (Main): G06F-001/00

File Segment: EPI

#### 7/5/26 (Item 26 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014283640 \*\*Image available\*\* WPI Acc No: 2002-104341/200214

Method for approving credit card transaction using bidirectional text message of wireless internet

Patent Assignee: KIM Y (KIMY-I)

Inventor: KIM J Y

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week KR 2001079056 A 20010822 KR 200132372 A 20010609 200214 B

Priority Applications (No Type Date): KR 200132372 A 20010609

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

KR 2001079056 A 1 G06F-017/60

Abstract (Basic): KR 2001079056 A

NOVELTY - A method for approving credit card transaction using a bidirectional text message of the wireless Internet is provided to prevent a credit card from piracy, by making the credit card transaction checked via a mobile communication terminal of a credit card owner in response to an identification request of a credit card company.

DETAILED DESCRIPTION - A credit card member registers a cellular phone number for receiving a text message in a server of a credit card company(S210). The credit card member suggests a credit card, and then requests an approval of the credit card to an approval relay company server in transaction (S220). The approval relay company server requests a transaction approval to a credit card company, and the credit card company sends an identification message of the transaction approval request(S230). The credit card member inputs a secret number into a server of the credit card company in order to confirm the transaction(S240). The credit card company server checks the secret number from the

credit card member, and sends resultant data of the transaction
 approval request to the approval relay company server(S250).
 pp; 1 DwgNo 1/10
Title Terms: METHOD; APPROVE; CREDIT; CARD; TRANSACTION; BIDIRECTIONAL;
 TEXT; MESSAGE; WIRELESS
Derwent Class: T01
International Patent Class (Main): G06F-017/60

7/5/27 (Item 27 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014283486 \*\*Image available\*\*
WPI Acc No: 2002-104187/200214

Method for offering payment service on pda using accumulated money

Patent Assignee: ONENET TECHNOLOGY INC (ONEN-N)

Inventor: CHO J S; HA M B; JUNG C M; KIM B G; KIM U T; KIM Y Y; LEE E J;

LEE H J; LEE J H; SUNG H B; YOON J Y

Number of Countries: 001 Number of Patents: 001

Patent Family:

File Segment: EPI

Patent No Kind Date Applicat No Kind Date Week KR 2001078847 A 20010822 KR 200122127 A 20010424 200214 B

Priority Applications (No Type Date): KR 200122127 A 20010424 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes KR 2001078847 A 1 G06F-017/60

Abstract (Basic): KR 2001078847 A

NOVELTY - A method for offering a payment service on a **PDA** ( **Personal Digital Assistant** ) using accumulated money is provided to improve a use degree of the accumulated money and the **PDA** , by supplying a coupon and a bar code to the **PDA** , and enabling payment of a product and service using the coupon and the bar code.

DETAILED DESCRIPTION - The coupon and the bar code are displayed on the PDA (S500). A clear button on the PDA is clicked so that validity of the coupon and the bar code can be checked(S501). When the clear button is clicked, the PDA is connected to a web server automatically(S502). The web server determines whether the coupon and the bar code are valid(S503). If the coupon and the bar code are not valid(S504), this information is sent to the PDA (S505). If the coupon and the bar code are valid and thereby the payment of the product is made, a code number database is updated(S506). A payment money database of an allied company is also updated(S507). A used coupon is deleted from the PDA automatically after the payment(S508).

pp; 1 DwgNo 1/10

Title Terms: METHOD; OFFER; PAY; SERVICE; ACCUMULATE; MONEY

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

7/5/28 (Item 28 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014240914 \*\*Image available\*\* WPI Acc No: 2002-061614/200208

XRPX Acc No: N02-045728

Self-service terminal used as e.g. ATM, has processor that receives and processes requested transaction from user's portable electronic device without having to prepare authorization request

Patent Assignee: NCR INT INC (NATC ); NCR CORP (NATC )

Inventor: HALEY M; NIELSON P; NIELSEN P

Number of Countries: 027 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20010044777 A1 20011122 US 2001848003 A 20010503 200208 B
EP 1160744 A2 20011205 EP 2001304163 A 20010509 200208

Priority Applications (No Type Date): GB 200011275 A 20000510

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20010044777 A1 12 G06F-017/60

EP 1160744 A2 E G07F-007/10

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): US 20010044777 A1

NOVELTY - The self-service terminal has communication port for interfacing with a user's portable electronic device and for receiving a **transaction authorization** from the user's portable electronic device. A processor receives the requested transaction from the user's portable electronic device and processes the requested **transaction** without the terminal preparing an **authorization** request.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) the ATM;
- (b) the portable electronic device;
- (c) the transaction system;
- (d) the authorization request facility for execution on the portable electronic device;
- (e) and the public access docking terminal for the portable electronic device.

USE - Used as e.g. automated teller machine.

ADVANTAGE - Does not require any telecommunications links because self-service terminal does not obtain authorization from any device out with itself. Does not require any user interface, e.g. screen, encrypting PIN keypad, since all information is sent from and to portable electronic device. Does not need to access any network as portable device obtains authorization itself. Inexpensive and can be located anywhere provided an electronic device can establish a communication there. Enables users to typically authorize transaction when in the vicinity of the terminal, thereby avoiding problem of user carrying a pre- authorized transaction on his/her portable electronic device. Ensures reduced possibility of fraud or replay attacks. Ensures reduced cost in owning and maintaining an ATM. Ensures simple user interface on terminal because user enters a transaction on his/her own user interface. Ensures no telecommunication costs associated with each transaction.

DESCRIPTION OF DRAWING(S) - The figure is a flowchart showing the steps involved in obtaining a  ${\it transaction}$  authorization .

pp; 12 DwgNo 9/9

Title Terms: SELF; SERVICE; TERMINAL; ATM; PROCESSOR; RECEIVE; PROCESS; REQUEST; TRANSACTION; USER; PORTABLE; ELECTRONIC; DEVICE; PREPARATION; REQUEST

Derwent Class: T01; T05

International Patent Class (Main): G06F-017/60; G07F-007/10

International Patent Class (Additional): G07F-019/00

File Segment: EPI

### 7/5/29 (Item 29 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

014112522 \*\*Image available\*\*
WPI Acc No: 2001-596734/200167

XRPX Acc No: N01-444912 Mobile phone network financial transactions system using application stored in phone memory or SIM card interacting with administration server Patent Assignee: ADAMTECH LTD (ADAM-N); ADAM K (ADAM-I); BLIT S (BLIT-I); ECKSTEIN A (ECKS-I); INBAL B (INBA-I)

Inventor: ADAM K; BLIT S; ECKSTEIN A; INBAL B Number of Countries: 095 Number of Patents: 004

Patent Family:

Patent No Applicat No Kind Date Kind Date Week A2 20010830 WO 2001IL97 20010215 WO 200163375 Α 200167 20010903 AU 200132189 20010215 200202 AU 200132189 Α Α A2 20020710 EP 2001904277 20010215 EP 1221081 Α 200253 WO 2001IL97 Α 20010215 200301

US 20020181710 A1 20021205 WO 2001IL97 20010215 Α US 200230763 Α 20020712

Priority Applications (No Type Date): IL 134741 A 20000227 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200163375 A2 E 50 G06F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR

IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200132189 A G06F-000/00 Based on patent WO 200163375 Based on patent WO 200163375 G06F-001/00 EP 1221081 A2 E

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

US 20020181710 A1 H04K-001/00

Abstract (Basic): WO 200163375 A2

NOVELTY - System comprises an administrating server (3) communicating with mobile phones (1), and communication units at the merchant points of sale (2) identifying the mobile phone and sending a message to the server identifying merchant, customer and amount to be paid. The server then sends the transaction details to the mobile phone for authorization by the customer, receives them back, sends a authorization to the communication unit and this sends a transaction message to the server which then debits the customer account.

DETAILED DESCRIPTION - The network is GSM, the phone uses a hardware or software application program stored in memory or SIM card, communication is by using SMS or WAP protocol, ID numbers are used for identification and can be arbitrary codes or numbers and the server and communication unit communicate through a point-to-point line, telephone line, wireless link or the Internet. Messages can be voice authorization requests. There is an INDEPENDENT CLAIM for a method of conducting transactions over a mobile phone network.

USE - System is for financial transactions using mobile phones. ADVANTAGE - System uses mobile phones as terminals, minimizes the number of messages transmitted between the customer, merchant and the network server, centralizes accounts administration and stores the system user application on a SIM card for rapid installation in any phone operating with a SIM card.

DESCRIPTION OF DRAWING(S) - The figure shows a mobile transaction system with

mobile phone (1) point of sale (2) administrating server (3) pp; 50 DwgNo 1/11

Title Terms: MOBILE; TELEPHONE; NETWORK; FINANCIAL; TRANSACTION; SYSTEM; APPLY; STORAGE; TELEPHONE; MEMORY; CARD; INTERACT; ADMINISTER; SERVE Derwent Class: T01; T05

International Patent Class (Main): G06F-000/00; G06F-001/00;

H04K-001/00 File Segment: EPI

7/5/30 (Item 30 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013945934 \*\*Image available\*\* WPI Acc No: 2001-430147/200146

Real time phone and phone payment method

Patent Assignee: SHIN H G (SHIN-I)

Inventor: SHIN H G

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date 20000922 200146 B 20010105 KR 200055616 Α KR 2001000363 A KR 325416 20020221 KR 200055616 Α 20000922 200257 В

Priority Applications (No Type Date): KR 200055616 A 20000922

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

KR 2001000363 A 1 G06F-017/60

KR 325416 B G06F-017/60 Previous Publ. patent KR 2001000363

Abstract (Basic): KR 2001000363 A

NOVELTY - A real time payment method is provided to perform safely a payment on a transaction between one person and the other person or a company by using mobile communication terminals and short message service, and to prevent a leakage of the personal information in the conventional payment method.

DETAILED DESCRIPTION - A real time payment method comprises steps of a user performing a payment log-in by a **password** registered at a member subscription(1), selecting a payment execution by inputting a payee data, a payment amount and a **password** (2), transmitting the input data to a payment server(3), and displaying a payment check short message on an LCD of the **cellular phone**. If the user **approves** the transmitted short message, the **payment approval** message is transmitted to banks or financial organizations and an automatic fund transfer is performed between the payer and the payee.

pp; 1 DwgNo 1/10

Title Terms: REAL; TIME; TELEPHONE; TELEPHONE; PAY; METHOD

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

7/5/31 (Item 31 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013825716 \*\*Image available\*\*
WPI Acc No: 2001-309928/200133

XRPX Acc No: N01-221881

Credit card size portable device for managing monthly accounts in electronic way has device that organizes categories of natures of expenses described in terms of national and convertible currencies including euros

Patent Assignee: WILLARET E (WILL-I); WILLARET F (WILL-I); WILLARET L (WILL-I)

Inventor: WILLARET E; WILLARET F; WILLARET L
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week FR 2798486 A1 20010316 FR 9911558 A 19990915 200133 B

Priority Applications (No Type Date): FR 9911558 A 19990915 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes FR 2798486 A1 5 G06F-015/02 Abstract (Basic): FR 2798486 A1 NOVELTY - The device organizes categories of natures of expenses described in terms of national and convertible currencies including euros. Several touch control keys are used for e.g. forecasting monthly outgoings key (12), real outgoings evaluation (13), a transaction validation key (16), transaction canceling key (17), Euro data entry setting key (19) and a national currency data entry setting key (20). USE - As an electronic device of credit card format to manage from e.g. daily expenses of a user or an enterprise compared with a budget in value and in time. ADVANTAGE - Provides of the categories in estimated value and in real budget. Provides report of the expenses comparative to the budget by category and in total for a month or every month of the year, report of the state of the expenses in past in national currency or in Euros. DESCRIPTION OF DRAWING(S) - The drawing shows a layout of the financial organizer according to the present invention. monthly outgoings key (12) real outgoings evaluation (13) currency selection key (14) transaction validation key (16) Euro data entry setting key (19) national currency data entry setting key (20) .pp; 5 DwqNo 1/1 Title Terms: CREDIT; CARD; SIZE; PORTABLE; DEVICE; MANAGE; MONTH; ACCOUNT; ELECTRONIC; WAY; DEVICE; CATEGORY; NATURE; EXPENSE; DESCRIBE; TERM; NATION; CONVERT Derwent Class: T01 International Patent Class (Main): G06F-015/02 File Segment: EPI (Item 32 from file: 350) 7/5/32 DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 013617916 \*\*Image available\*\* WPI Acc No: 2001-102124/200111 Related WPI Acc No: 1998-333677; 2001-501645; 2002-740281; 2003-220737 XRPX Acc No: N01-075863 Portable transaction arrangement of electronic transaction system, has portable emulation card configuring device to write charge card data from memory to emulation card if user is authenticated Patent Assignee: ESIGN INC (ESIG-N); ESIGN CORP (ESIG-N) Inventor: WANG Y Number of Countries: 090 Number of Patents: 006 Patent Family: Patent No Kind Date Applicat No Kind Date A2 20000908 WO 2000US4819 A WO 200052866 20000225 200111 20000921 AU 200040043 AU 200040043 A 20000225 200111 Α A2 20011205 EP 2000919340 EP 1159700 Α 20000225 200203 WO 2000US4819 Α 20000225 KR 2001108292 A 20011207 KR 2001711130 Α 20010831 200236 A CN 1344396 Α 20020410 CN 2000805438 20000225 200249 JP 2003517658 W 20030527 A A JP 2000603183 20000225 200344 WO 2000US4819 20000225 Priority Applications (No Type Date): US 99260384 A 19990302 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes WO 200052866 A2 E 66 H04K-000/00

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW AU 200040043 A Based on patent WO 200052866 G06F-017/60 EP 1159700 A2 E Based on patent WO 200052866 Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI KR 2001108292 A G06K-019/00 CN 1344396 G06F-017/60 JP 2003517658 W 67 G06F-017/60 Based on patent WO 200052866 Abstract (Basic): WO 200052866 A2 NOVELTY - An emulation card has emulation card interface which emulates interface of electronic smart card, facilitating communication between card and charge card terminal. A memory stores card data pertaining to primary card of user. A portable emulation card configuring device writes card data from memory to emulation card if user is authenticated through authentication mechanism. DETAILED DESCRIPTION - The emulation card appears through emulation card interface after writing. The charge card terminal is an automatic teller machine or point of scale terminal. INDEPENDENT CLAIMS are also included for the following: (a) charge card transaction permitting method; (b) user permitting method to approve Internet transaction request USE - For permitting user to conduct smart card transaction in electronic transaction system using portable electronic authorization device . ADVANTAGE - The identification data related to the user is kept secure within PEAD at all times and transaction approval occurs within PEAD and data representing such approval is encrypted. Even if approval data is intercepted, its encryption prevent unauthorized users from employing the identification data for illicit purposes. DESCRIPTION OF DRAWING(S) - The figure shows the portable electric authorization device for securely approving transactions conducted
by electronic transaction system. pp; 66 DwgNo 2/11 Title Terms: PORTABLE; TRANSACTION; ARRANGE; ELECTRONIC; TRANSACTION; SYSTEM; PORTABLE; EMULATION; CARD; DEVICE; WRITING; CHARGE; CARD; DATA; MEMORY; EMULATION; CARD; USER; AUTHENTICITY Derwent Class: P85; T01; T04; T05; W01 International Patent Class (Main): G06F-017/60; G06K-019/00; H04K-000/00 International Patent Class (Additional): G06F-015/00; G09C-001/00; H04L-009/10; H04Q-007/38 File Segment: EPI; EngPI 7/5/33 (Item 33 from file: 350) DIALOG(R) File 350: Derwent WPIX Keserv. (c) 2003 Thomson Derwent. All rts. 012955008 \*\*Image available\*\* WPI Acc No: 2000-126858/200011 XRPX Acc No: N00-095588 Data signal transmitting system for pen input device of computer Patent Assignee: LCI/SMARTPEN NV (LCIS-N) DESCHRIJVER S (DESC-I) Inventor: DE SCHRIJVER S A; DESCHRIJVER S \\
Number of Countries: 087 Number of Patents; 006 Patent Family: kind Patent No Kind Date Applicat No Date Week Al 20000106 WO 99US14494 WO 200000928 19990625 200011 200026

Search performed by Sylvia Keys\

20000117 AU 9948352

AU 9948352

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November 24, 2003

19990625

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A1 20010523
EP 1101188
                                         EP 99931945
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                                         WO 99US14494
                                                                     19990625
US 6311042
                     В1
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                                         US 99344723
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                                                                     19990626
                           20010912
                                         CN 99807664
                                                                Α
                                                                     19990625
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 CN 1312930
                     Α
 JP 2003521826 W
                           20030715
                                         WO 99US14494
                                                                     19990625
                                                                                   200347
                                                                Α
                                         JP 2000557429
                                                                     19990625
                                                               Α
 Priority Applications (No Type Date): US 9890933 P/19980626; JUS 99344723 A
   19990626
 Patent Details:
 Patent No Kind Lan Pg Main IPC
                                                    Filing Notes
WO 200000928 A1 E 25 G06K-011/18
    Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK
    SL TJ TM TR TT UA UG UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
     IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
AU 9948352
                                G06K-011/18
                                                    Based on patent WO 200000928
    1101188 A1 E G06K-011/18 Based on patent WO 200000928

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB R IE IT LI
EP 1101188
    LU MC NL PT SE
                                                    Provisional application US 9890933
US 6311042
                    В1
                                 H04B-001/38
CN 1312930
                                 G06K-011/18
                    Α
JP 2003521826 W
                                                    Based on patent WO 200000928
                            23 H04M-001/00
Abstract (Basic): WO 200000928 A1
     NOVELTY - The pen input device traces image on a writing surface, and a sensor detects movement of nib on pen and generates corresponding data signal. A transmitter transmits the signal to receiver of a wireless communication device which transmits the signal over a
      communication channel.
     DETAILED DESCRIPTION - The transmitter comprising a serial data generated is either an IR transmitter or RF transmitter. The data signal is formatted to data packet confirming to a data transfer protocol, by a data packet generator. The wireless communication device is either a mobile telephone, PDA with wireless communication device
      or a wireless modems.
           An INDEPENDENT CLAIM is also included for method for verifying
      identity of a user at remote location
           USE - For pen input device of laptop computer for verification of
     signature for credit / card purchase, white-board application, chat application, web-based application, web-page, E-mail applications.
           ADVANTAGE - Enables verification and analysis of user's signature
     or other image data at remote server, thereby enabling utilization of
      image transmitting/system for authorizing financial transaction .
     DESCRIPTION OF DRAWING(S) - The figure shows the functional block diagram of system which permits user to transmit voice and data over a
     wireless network pp; 25 DwgNo 1/5
Title Terms: DATA; SIGNAL; TRANSMIT; SYSTEM; PEN; INPUT; DEVICE; COMPUTER
Derwent Class: T01; T04; T05; W01
International Patent Class (Main): G06K-011/18; H04B-001/38; H04M-001/00
International Patent Class (Additional): G06F-003/03; G06F-003/033
File Segment: EPI
 7/5/34
                 (Item 34 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.
012913410
                 \**Image available**
WPI Acc No:
                /2000-085246/200007
XRPX Ace No: N00-066812
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cellular telephones, electronic wallet, wireless PIN pad, contactless smart card, etc Patent Assignee: MORRILL P H (MORR-I) Inventor: MORRILL P H Number of Countries: 001 Number of Patents: 001 Patent Family: Patent No Kind Date Applicat No Kind Date Week US 9620312 19960917 US 5991749 19991123 200007 B Α A/ US 97929217 19970909 Priority Applications (No Type Date): US 9620312 P 19960911; US 97929217 A 19970909 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes 21 G06F-015/30 US 5991749 Α Provisional application US 9620312 Abstract (Basic): US 5991749 A NOVELTY - A service provider's CPU processes account and authorization-information, in response to function code entered by user on keypad of cellular phase. The service provider CPU, identifies desired transaction and supplies personal ID number if needed. The desired transaction is authorized to determine different accounts involved and confirms completion of transaction. DETAILED DESCRIPTION - The desired transaction involves a default amount at preset price and variable amount. An INDEPENDENT CLAIM is also included for a method for verifying identity and authorizing access to secured location. USE - For collecting tolls of cellular telephones, electronic wallet, wireless PIN pad, contactless smart card, etc.

ADVANTAGE - Highly reliable and simple technique provides desirable results since an unauthorized user with closed cellular phone would need to know unique function code, account number and personal identification number (PIN) to complete the transaction and generate a confirmation number and thus transactions of unauthorized users are not performed. DESCRIPTION OF DRAWING(S) - The figure shows the chart of the steps involved in computer tolling procedure.
 pp; 21 DwgNo 2A, 2B/3 Title Terms: FUND; TRANSFER; AUTHENTICITY; METHOD; TRANSFER; FUND; CELLULAR ; TELEPHONE; ELECTRONIC; WALLET; WIRELESS; PIN ; PAD; CONTACT; SMART; CARD Derwent Class: T01; T05; W01; W02 International Patent Class (Main): G06F-015/30 International Patent Class (Additional): G06F-015/20; G06F-015/21; H04M-011/00 File Segment: EPI 7/5/35 (Item 35 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 010372990 \*\*Image available\*\* WPI Acc No: 1995-274352/199536 Related WPI Acc No: 1996-000530 XRPX Acc No: N95-209647 Security system for non-cash real-time payment - uses telecommunication system to notify card owner of use of card and notifies corresponding computer accounting system to stop illegal transaction Patent Assignee: HUANG J (HUAN-I); WONG K (WONG-I) Inventor: HUANG J; WONG K

Funds transfer authenticating method for transferring funds using

Kind

Date

Week

Applicat No

Number of Countries: 005 Number of Patents: 006

Date

Kind

Patent Family: Patent No

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19950701 TW 94108630
·TW 259553
              Α
                                                19940917
                                                          199536 B
                  19951129 GB 9413204
                                                19940630
GB 2289783
                                                          199551
              Α
                                            Α
FR 2720176
              A1 19951124 FR 9410197
                                            Α
                                                19940819
                                                          199603
                  19970325 US 94294144
                                                19940822
US 5615110
              Α
                                            Α
                                                          199718
                  19970813 GB 9413204
                                                19940630
GB 2289783
                                            Α
                                                          199735
              В
                  19951213 CN 94105095
                                                19940519
CN 1113368
                                            Α
                                                          199738
              Α
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Priority Applications (No Type Date): CN 94105095 A 19940519

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

TW 250553 A 7
GB 2289783 A 27
US 5615110 A 13

Abstract (Basic): TW 250553 A

The system transmits a 'transaction occuring' message combined with a checking **password** address of the actual card owner. It is transmitted via the corresponding computer accepting system of the bank or phone company. The signal is transmitted to the transaction signal transmitting station by radio signal, the public phone line or communication cable.

The station transmits a 'received transaction' message by a preset encoding signal. The receiver is checked out with the **password** address. The corresponding message including the transaction amount and location is received. It is displayed on screen to judge if the transaction is legal or illegal. When the above transaction is illegal, the corresponding computer accounting system is notified to stop the transaction process through the communication tools.

 ${\tt USE/ADVANTAGE-Prevents\ illegal\ use\ of\ stolen\ \ \boldsymbol{credit\ \ card\ }\ or\ cellular\ \ phone\ .}$ 

Dwg.1/7

Title Terms: SECURE; SYSTEM; NON; CASH; REAL; TIME; PAY; TELECOMMUNICATION; SYSTEM; NOTIFICATION; CARD; OWNER; CARD; NOTIFICATION; CORRESPOND; COMPUTER; ACCOUNT; SYSTEM; STOP; ILLEGAL; TRANSACTION

Derwent Class: T01; T05; W01; W05

International Patent Class (Main): G06F-015/21; G06F-017/60;
G07F-007/08; H04K-001/00

International Patent Class (Additional): G06K-005/00; G08B-005/22; G08B-021/00; H04M-001/66; H04Q-007/00

File Segment: EPI

7/5/36 (Item 36 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

009424277 \*\*Image available\*\*
WPI Acc No: 1993-117793/199314

XRPX Acc No: N93-089753

Integrated portable unit for point of sale transactions - processes transactions using magnetic card reader carried within housing with numeric and alphabetic keyboard for entering customer information and bar-code scanner for scanning product

Patent Assignee: KHYBER TECHNOLOGIES CORP (KHYB-N)

Inventor: KUMAR R

Number of Countries: 019 Number of Patents: 011

Patent Family:

Patent No Kind Date Applicat No Kind Date Week 19920925 199314 WO 9306564 19930401 WO 92US8210 A1 Α AU 9227564 19930427 AU 9227564 19920925 199332 Α Α WO 92US8210 Α 19920925 US 5294782 19940315 US 91767270 Α Α 19910927 199411 EP 605630 Α1 19940713 EP 92921193 Α 19920925 199427 WO 92US8210 Α 19920925 US 5386106 19950131 US 91767270 Α Α 19910927 199511

	•			US	94213489	Α	19940315	
JР	7501903	W	19950223	WO	92US8210	Α	19920925	199517
				JΡ	93506400	Α	19920925	
US	5489773	A	19960206	US	91767270	A	19910927	199612
				US	94213489	A	19940315	
				US	94352231	A	19941208	
CA	2120011	С	19990803	CA	2120011	A	19920925	199951
				WO	92US8210	Α	19920925	
JΡ	2983288	В2	19991129	WO	92US8210	Α	19920925	200002
				JP	93506400	Α	19920925	
ΕP	605630	B1	20010207	ΕP	92921193	Α	19920925	200109
				WO	92US8210	Α	19920925	
DE	69231684	E	20010315	DE	631684	Α	19920925	200122
				EΡ	92921193	Α	19920925	
				WO	92US8210	Α	19920925	

Priority Applications (No Type Date): US 91767270 A 19910927; US 94213489 A 19940315; US 94352231 A 19941208

Cited Patents: US 4706095; US 5055660; US 5107100; US 5149947; WO 8706377 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9306564 A1 E 22 G06K-005/00

Designated States (National): AU CA JP

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE

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AU 9227564
              Α
                       G06K-005/00
                                      Based on patent WO 9306564
US 5294782
              Α
                    12 G06K-007/10
              A1 E
EP 605630
                     2 G06K-005/00
                                      Based on patent WO 9306564
   Designated States (Regional): BE DE FR GB LU NL
US 5386106
                    11 G06K-007/10
                                      Cont of application US 91767270
              Α
                                      Cont of patent US 5294782
JP 7501903
              W
                     1 G07G-001/12
                                      Based on patent WO 9306564
                    11 G06K-007/10
US 5489773
              Α
                                      Cont of application US 91767270
                                      Cont of application US 94213489
                                      Cont of patent US 5294782
                                      Cont of patent US 5386106
CA 2120011
              С
                 Ê
                       G06F-017/60
                                      Based on patent WO 9306564
                                      Previous Publ. patent JP 7501903
JP 2983288
              B2
                    12 G07G--001/12
                                      Based on patent WO 9306564
                       G06K-005/00
                                      Based on patent WO 9306564
EP 605630
              B1 E
   Designated States (Regional): BE DE FR GB LU NL
DE 69231684
              F.
                       G06K-005/00
                                      Based on patent EP 605630
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Abstract (Basic): WO 9306564 A

The portable unit (10) has a housing (20) with top, bottom and two end surfaces, and a magnetic reader unit (40) for reading **credit card** information carried within the housing adjacent to the first end of the housing. A data entry portion is used for entering customer information, and a scanner scans the product **identification** information, the scanner position adjacent to the second end of the housing.

Based on patent WO 9306564

A display (80) displays selected **credit card** information, customer information and product **identification** information, and is located by the top surface of the housing. A printer (90) prints a customer receipt. A communications unit (110) furnishes **transaction approval**. A processor receives the **credit card** information, the customer information and the product **identification** information and controls the display, the printer and the approval furnisher.

ADVANTAGE - Provides portable, hand-held data collection terminal, including all necessary functions to facilitate and complete point of sale **credit** card transaction.

Dwg.1/6

Title Terms: INTEGRATE; PORTABLE; UNIT; POINT; SALE; TRANSACTION; PROCESS; TRANSACTION; MAGNETIC; CARD; READ; CARRY; HOUSING; NUMERIC; ALPHABET;

 KEYBOARD; ENTER; CUSTOMER; INFORMATION; BAR-CODE; SCAN; SCAN; PRODUCT Derwent Class: T04; T05 International Patent Class (Main): G06K-005/00; G06K-007/10; G07G-001/12 International Patent Class (Additional): G06F-017/60; G06K-007/00; G06K-017/00 File Segment: EPI 7/5/37 (Item 37 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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008338933 \*\*Image available\*\* WPI Acc No: 1990-225934/199030

XRPX Acc No: N90-175354

Secure data interchange system - uses intelligent card as portable device to verify that terminal is valid, which in turn verifies that card is valid

Patent Assignee: GRAVES M A (GRAV-I); GRAVES M (GRAV-I)

Inventor: GRAVES M A; GRAVES M

Number of Countries: 018 Number of Patents: 009

Patent Family:

	- 4	ciic ramirry	•							
	Pat	ent No	Kind	Date	App	olicat No	Kind	Date	Week	
7	CEP.	379333	Α	19900725	ΕP	90300442	Α	19900116	199030	В
	AU	9047815	Α	19900726					199038	
	ΑU	633534	В	19930204	ΑU	9047815	Α	19900109	199312	
	ΝZ	232106	Α	19930526	ΝZ	232106	Α	19900115	199324	
	NZ_	244768	Α	19930526	ΝZ	244768	Α	19900115	199324	
6	US	5239166	Α	19930824	US	89364879	Α	19890612	199335	
`					US	91756834	Α	19910909		
	CA	1326304	С	19940118	CA	588388	Α	19890117	199409	
	ΕP	379333	B1	19950712	ΕP	90300442	Α	19900116	199532	
	DE	69020746	E	19950817	DE	620746	Α	19900116	199538	
					ΕP	90300442	Α	19900116		

Priority Applications (No Type Date): CA 588388 A 19890117 Cited Patents: GB 1505715; US 3702464; CA 1207460; EP 216298; EP 220703; EP 223122; EP 243873; GB 1504196; GB 2181582; GB 2185937; US 4138058 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 379333 Α

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE Previous Publ. patent AU 9047815 AU 633534 В G06F-015/21

2244768\_ G07F-007/12 Div ex patent NZ 232106 Α

us 5239166 8 G06K-005/00 Α Cont of application US 89364879

B1 E EP 379333\_ 9 G07F-007/10

<del>"Desi</del>gnated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU NL SE

Based on patent EP 379333 DE 69020746 E G07F-007/10

NZ 232106 Α G07F-007/10

CA 1326304 С G06F-012/14

## Abstract (Basic): EP 379333 A

At least one portable electronic device communicates with at least one terminal device. The portable device (4) verifies that the terminal device (3) is a valid one. The terminal device verifice that the portable device is valid. Further verification is performed to ensure that the user is authorised to use the system. A protection device prevents tampering with a terminal, and decodes data at the interface between the portable device and the terminal device. ADVANTAGE - The system provices security against unauthroised access. The invention has use in the fields of automatic banking, automatic credit and debit transactions , passport and travel visa verification health and medical records, security access, licensing and any other like field where fraud may pose a problem.

Dwq.3/3



\*Title Terms: SECURE; DATA; INTERCHANGE; SYSTEM; INTELLIGENCE; CARD; PORTABLE; DEVICE; VERIFICATION; TERMINAL; VALID; TURN; VERIFICATION; CARD ; VALID Derwent Class: S05; T01; T04; T05 International Patent Class (Main): G06F-012/14; G06F-015/21; G06K-005/00; G07F-007/10; G07F-007/12 International Patent Class (Additional): G06F-012/10; G06K-009/00; G06K-019/067; G06K-019/073; G07F-007/08; H04L-009/10 File Segment: EPI (Item 38 from file: 350) 7/5/38 DIALOG(R)File 350:Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 003381249 WPI Acc No: 1982-N9284E/198242 Transaction verification system for restricted entry zones - includes optical data link allowing verification to be preformed both on-line and off-line Patent Assignee: BENTON W M (BENT-I) Inventor: BENTON W M Number of Countries: 006 Number of Patents: 003 Patent Family: Patent No Kind Date Applicat No / Kind Week WO 8203484 Α 19821014 198242 EP 76255 Α 19830413 198316 US 82451169 19821207 US 4523087 Α 19830611 Α 198526 Priority Applications (No Type Date): WO 81US450 A 19810407; US 82451169 A 19821207 Cited Patents: US 4007355; US 4053/735; US 4277837 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes WO 8203484 A E 30 Designated States (National): JP US Designated States (Regional/): DE FR GB SE EP 76255 A E Designated States (Regional): DE FR GB SE Abstract (Basic): WO 8203484 A The device is carried by the user and includes, in a housing a battery-operated microprocessor, a keyboard for entering identification and transaction data, and a display. For offline use, a voucher is received in an end recess of the housing and is printed by a print head mounted beneath a pivotable bar.

In use on-line, the device is placed in a cradle at the transaction station and the personal identity number is entered on the keyboard. Instructions are passed from the keyboard to an interactive terminal which provides communication between optical transceivers over the optical data link. This allows authorisation to be obtained directly from the author#sing institution which returns data to the display at the transaction station and on the verification device. Title Terms: TRANSACTION; VERIFICATION; SYSTEM; RESTRICT; ENTER; ZONE; OPTICAL; DATA; LINK; ALLOW; VERIFICATION; PREFORM; LINE; OFF-LINE Derwent Class: S05; T01; T04 International Patent Class (Additional): G06F-015/20; G06K-001/14

File Segment: EPI

(Item 1 from fi/le: 350) 8/5/1 DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv.

\*\*Image available\*\* 015645311 WPI Acc No: 2003-707494/200367

Related WPI Acc No: 2001-501645; 2002-267483

XRPX Acc No: N03-565194

Electronic authorization device for transactions , has electronic authorization firmware and memory circuit storing user private key and identification data with encryption logic to approve transaction request

Patent Assignee: ESIGN CORP (ESIG-N)

Inventor: WANG Y P
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date B1 20030715 US 96759555 200367 B; US 6594759 Α 19961204 US 98222368 Α 19981229

Priority Applications (No Type Date): US 98222368 A 19981229; US 96759555 A 19961204

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

22 H04L-009/30 US 6594759 В1 CIP of application US 96759555 CIP of patent US 5917913

Abstract (Basic): US 6594759 B1) PUD 3 1 25 02 NOVELTY - The device has a central processing unit and an electronic authorization firmware embedded on motherboard or on a plug-in board. The firmware has a memory circuit and an encryption logic circuit. The memory circuit stores a user private key (304) and user identification data (302) and the encryption logic circuit approves a transaction request by encrypting it using the private key.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of configuring electronic authorization firmware.

USE - Used for electronic transactions conducted through computer networks, automated teller machines (ATMs), automated point-of-sale systems, automated library and systems.

ADVANTAGE - The embedded electronic authorization firmware provides transaction approval within the system and eliminates the need to have the identification data and the users private key in the requesting device, and also enhances the confidentiality of the user identification data and the users private key. The device is also portable.

DESCRIPTION OF DRAWING(S) - The drawing shows a portable electronic authorization device.

Encryption logic circuit (300)

User identification data (302)

User private key. (304)

pp; 22 DwqNo 3a/9

Title Terms: ELECTRONIC; AUTHORISE; DEVICE; TRANSACTION; ELECTRONIC; AUTHORISE; FIRMWARE; MEMORY; CIRCUIT; STORAGE; USER; PRIVATE; KEY; IDENTIFY; DATA; ENCRYPTION; LOGIC; APPROVE; TRANSACTION; REQUEST

Derwent Class: T01; T05; W01

International Patent Class (Main): H04L-009/30

International Patent Class (Additional): H04L-012/22

File Segment: EPI

#### 8/5/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015160209

WPI Acc No: 2003-220737/200321

Related WPI Acc No: 1998-333677; 2001-102124; 2001-501645; 2002-267483;

2002-740281

XRPX Acc No: N03-176151

User transaction permission method using ATM, involves utilizing phone number or pin number to cause call to be placed to cellular phone of user to authorize charge card transaction, based on detected merchant card usage

Patent Assignee: WANG Y P (WANG-I); ESIGN CORP (ESIG-N)

Inventor: WANG Y P

Number of Countries: 102 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20030004827 A1 20030102 US 9867176 A 19980427 200321 B

US 99260384 A 19990302 US 200257465 A 20020125

WO 200365318 A2 20030807 WO 2002US38377 A 20021203 200361

Priority Applications (No Type Date): US 200257465 A 20020125; US 9867176 A 19980427; US 99260384 A 19990302

Patent Details:

Patent No Kind Lan Pg Main IPC US 20030004827 A1 28 G06F-017/60

Filing Notes
CIP of application US 9867176
CIP of application US 99260384
CIP of patent US 6282656

WO 200365318 A2 E G07F-007/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM  $^{\rm ZW}$ 

Abstract (Basic): US 20030004827 A1

NOVELTY - The use of a merchant card at a central processing area is detected. A phone number or a pin number to cause a call to be placed to a cellular phone of a user to **authorize** the charge card **transaction**, is utilized based on detection result. A report of the user charge card transaction is transmitted to the cellular phone and **approval** of the **transaction** to a merchant's charge card terminal is authorized.

USE - For permitting user to conductor charged card transaction using ATM, point of sale system, etc.

ADVANTAGE - The confidentiality of the user identification data and user private key are enhanced, thus integrity of **transaction** approval process is improved.

pp; 28 DwgNo 0/12

Title Terms: USER; TRANSACTION; PERMIT; METHOD; ATM; UTILISE; TELEPHONE; NUMBER; PIN; NUMBER; CAUSE; CALL; PLACE; CELLULAR; TELEPHONE; USER; AUTHORISE; CHARGE; CARD; TRANSACTION; BASED; DETECT; MERCHANT; CARD

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-017/60; G07F-007/00

File Segment: EPI

### 8/5/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014919574 \*\*Image available\*\*
WPI Acc No: 2002-740281/200280

\*Related WPI Acc No: 1998-333677; 2001-102124; 2001-501645; 2002-267483; 2003-220737

XRPX Acc No: N02-583244

Internet-based secure message reception method involves decrypting digital data representing secure message if share secret is found in share secret table in portable electronic authorization device

Patent Assignee: WANG Y P (WANG-I); ESIGN CORP (ESIG-N)

Inventor: WANG Y P

Number of Countries: 102 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20020123967 A1 20020905 US 9867176 A 19980427 200280 B

US 200126848 A 20011221

WO 200381377 A2 20031002 WO 2002US40616 A 20021218 200375

Priority Applications (No Type Date): US 200126848 A 20011221; US 9867176 A (19980427)

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 20020123967 A1 29 G06F-017/60 CIP of applicat

CIP of application US 9867176 CIP of patent US 6282656

WO 200381377 A2 E G06F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ. OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW .

Abstract (Basic): US 20020123967 A1

NOVELTY - A share secret is searched from a share secret table in a portable electronic authorization device (PEAD) (200). Received digital data representing a secure message, is decrypted, if the share secret is found otherwise a share secret is computed in the PEAD.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Internet-based secure message transmission method; and
- (2) Internet-based secure message exchanging method.

USE - For receiving a secure message pertaining to an electronic transaction conducted over Internet

ADVANTAGE - Allows transaction approvals to occur within the portable electronic authorization device (PEAD), hence enhances the confidentiality of the user identification data and the user's private key and enhances the integrity of the transaction process.

DESCRIPTION OF DRAWING(S) - The figure shows a portable electronic authorization device.

Portable electronic authorization device (200)

pp; 29 DwqNo 2/12

Title Terms: BASED; SECURE; MESSAGE; RECEPTION; METHOD; DIGITAL; DATA; REPRESENT; SECURE; MESSAGE; SHARE; SECRET; FOUND; SHARE; SECRET; TABLE; PORTABLE; ELECTRONIC; AUTHORISE; DEVICE

Derwent Class: T01; T05

International Patent Class (Main): G06F-000/00; G06F-017/60

File Segment: EPI

### 8/5/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014446780 \*\*Image available\*\*
WPI Acc No: 2002-267483/200231

Related WPI Acc No: 1998-333677; 2001-501645; 2002-740281; 2003-220737;

2008-707494

XRPX Acc No: N02-207979

Electronic transaction request approval in portable electronic authorization device, involves decrypting private key of specific user of PEAD using decryption key of remote server, if transaction request is user approved

Patent Assignee: DING J C (DING-I); GRIZZARD J A (GRIZ-I); WANG Y P

(WANG-I); ESIGN CORP (ESIG-N)

Inventor: DING J C; GRIZZARD J A; WANG Y P

Number of Countries: 100 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20020023215 A1 20020221 US 96759555 A 19961204 200231 B
US 9867176 A 19980427

US 2000523825 A 20000313 US 2000668213 A 20000922 US 2001792224 A 20010223

WO 200269291 A2 20020906 WO 2002US5701 A 20020222 200268

Pricrity Applications (No Type Date): US 2001792224 A 20010223; US 96759555 A 19961204; US 9867176 A 19980427; US 2000523825 A 20000313; US 2000668213 A 20000922

Patent Details:

Patent No Kind Lan Pg Main IPC US 20020023215 Al 35 H04L-009/00

Filing Notes
Cont of application US 96759555
CIP of application US 9867176
CIP of application US 2000523825
CIP of application US 2000668213
Cont of patent US 5917913

CIP of patent US 6175922 CIP of patent US 6282656

WO 200269291 A2 E G07F-019/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW Abstract (Basic): US 20020023215 A1

NOVELTY - The portable electronic authorization device (PEAD) (200) receives the transaction request in the form of digital data. If the transaction request is approved by a user of the PEAD, the private key of the specific user is decrypted using the decryption key of a remote server. The decrypted digital data is transmitted to the electronic transaction system for encryption by the user private key.

USE - For electronic transactions through computer networks like Internet, automated teller machines, automated point-of-sale systems and automated library systems.

ADVANTAGE - Eliminates risk of unauthorized access to the account of the user and unauthorized procurement of user identity. Is portable and permits user to perform transaction authentication, conveniently and comfortably.

DESCRIPTION OF DRAWING(S) - The figure shows the PEAD for securely approving transactions conducted by electronic transaction system.

Portable electronic authorization device (200)

pp; 35 DwgNo 2/13

Title Terms: ELECTRONIC; TRANSACTION; REQUEST; APPROVE; PORTABLE; ELECTRONIC; AUTHORISE; DEVICE; PRIVATE; KEY; SPECIFIC; USER; DECRYPTER; KEY; REMOTE; SERVE; TRANSACTION; REQUEST; USER; APPROVE

Derwent Class: T01; T05; W01

International Patent Class (Main): G07F-019/00; H04L-009/00

International Patent Class (Additional): H04K-001/00

File Segment: EPI

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DIALOG(R)File 350:Derwent WPIX

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(Item 5 from file: 350)

014017431 \*\*Image available\*\*

WPI Acc No: 2001-501645/200155

Related WPI Acc No: 1998-333677; 2001-102124; 2002-267483; 2002-740281;

2003-220737; 2003-707494 XRPX Acc No: N01-371959

Approval of transaction request between electronic transaction system and portable electronic authorization device, involves sending PEAD electronic service authorization token upon approval of request

Patent Assignee: ESIGN INC (ESIG-N)

Inventor: WANG Y P

Number of Countries: 096 Number of Patents: 008

Patent Family:

	. C.i.c ramary	•							
Pat	ent No	Kind	Date	Apj	plicat No	Kind	Date	Week	
US	6175922	В1	20010116	US	96759555	Α	19961204	200155	В
				US	9867176	Α	19980427		
				US	2000523825	Α	20000313		
WO	200169388	A1	20010920	WO	2000US32910	Α	20001204	200156	
ΑU	200120597	Α	20010924	ΑU	200120597	Α	20001204	200208	
CN	1360265	Α	20020724	CN	2000136257	Α	20001218	200269	N
ΕP	1272933	A1	20030108	EΡ	2000983897	Α	20001204	200311	
				WO	2000US32910	Α	20001204		
KR	2002081435	Α	20021026	KR	2002711959	Α	20020912	200317	
TW	487864	Α	20020521	TW	2000120900	Α	20001006	200320	
JΡ	2003527714	W	20030916	WO	2000US32910	Α	20001204	200362	
				JP	2001568199	Α	20001204		

Priority Applications (No Type Date): US 2000523825 A 20000313; US 96759555 A 19961204; US 9867176 A 19980427; CN 2000136257 A 20001218 Patent Details:

Patent No Kind Lan Pg Main IPC US 6175922 B1 30 G06F-011/30

Filing Notes

Cont of application US 96759555 CIP of application US 9867176 Cont of patent US 5917913

WO 200169388 A1 E G06F-011/30

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200120597 A G06F-011/30 Based on patent WO 200169388

CN 1360265 A G06F-015/00

EP 1272933 A1 E G06F-011/30 Based on patent WO 200169388

Designated States (Regional): AL AT BE CH  $\overline{\text{CY}}$  DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

KR 2002081435 A G06F-017/60

TW 487864 A G06F-017/60

JP 2003527714 W 72 G06F-017/60 Based on patent WO 200169388

Abstract (Basic): US 6175922 B1

NOVELTY - The method involves receiving digital data, representing a transaction request, from a PEAD (200). A user is then provided with information regarding an ability to **approve** the **transaction** request. When the **transaction** request is **approved** by the user, the PEAD receives another digital data representing the electronic service authorization token.

DETAILED DESCRIPTION - The electronic service authorization token is used to approve the transaction request between the electronic transaction system (102) and PEAD. INDEPENDENT CLAIMS are also included

• q. For the following: (a) the PEAD; (b) and the service rendering method between electronic transaction system and PEAD. USE - For conducting electronic transactions between electronic transaction system and PEAD. ADVANTAGE - Eliminates security risks associated with conventional approval of transactions between user and electronic transaction system. Completes a transaction request pertaining to an electronic transaction conducted over an electronic network with server and requesting device. Transmits encrypted transaction approval data to server to complete electronic transaction. Enhances confidentiality and security of data items. Uses PEAD of reduced size, weight and cost. DESCRIPTION OF DRAWING(S) - The figure shows the PEAD for securely approving transactions conducted with an electronic transaction system. Electronic transaction system (102) PEAD (200) pp; 30 DwgNo 2/11 Title Terms: APPROVE; TRANSACTION; REQUEST; ELECTRONIC; TRANSACTION; SYSTEM ; PORTABLE; ELECTRONIC; AUTHORISE; DEVICE; SEND; ELECTRONIC; SERVICE; AUTHORISE; TOKEN; APPROVE; REQUEST Derwent Class: T01; T05 International Patent Class (Main): G06F-011/30; G06F-015/00; G06F-017/60 International Patent Class (Additional): G06F-009/06; G06K-017/00; H04L-009/30 File Segment: EPI (Item 6 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. \*\*Image available\*\* 011916767 WPI Acc No: 1998-333677/199829 Related WPI Acc No: 2001-102124; 2001-501645; 2002-267483; 2002-740281; 2003-220737 XRPX Acc No: N98-260435 Transaction request approval method for electronic authorisation device in electronic system - using hand held unit that can read transaction data from automated teller machine, and return encrypted user authorisation on user command Patent Assignee: WANG Y P (WANG-I); WANG Y (WANG-I) Inventor: WANG Y P ; WANG Y Number of Countries: 079 Number of Patents: 002 Patent Family: Patent No Date Applicat No Kind Kind Date Week 19971204 WO 9825371 A1 19980611 WO 97US23125 A 199829 B US 6282656 B1 20010828 US 96759555 A 19961204 200151 US 9867176 19980427 Α Priority Applications (No Type Date): US 96759555 A 19961204; US 9867176 A 19980427 Patent Details: Patent No Kind Lan Pg Filing Notes Main IPC WO 9825371 A1 E 46 H04K-001/00 Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

H04N-001/413 Cont of application US 96759555

Cont of patent US 5917913

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT

KE LS LU MC MW NL OA PT SD SE SZ UG ZW

В1

US 6282656

Abetract (Basic): WO 9825371 A

The transaction authorisation method involves using a hand-held personal electronic authorisation unit. When the user requires to authorise a transaction, e.g. a request at an automated teller machine (ATM) (202), the ATM transmits the transaction detail via a port (204). This can be a radio, infrared or physical port.

The hand-held unit (200) receives the transaction data and either it or the ATM displays the data to the user for authorisation. The user can then press a switch (210) to provide authorisation. The unit transmits the relevant user security codes in an encrypted format. The hand-held unit can include a system to verify its use by its true owner.

 ${\tt ADVANTAGE}$  - Improves authorisation security by avoiding visibility of passwords and using encryption.

Dwq.2/8

Title Terms: TRANSACTION; REQUEST; APPROVE; METHOD; ELECTRONIC; AUTHORISE; DEVICE; ELECTRONIC; SYSTEM; HAND; HELD; UNIT; CAN; READ; TRANSACTION; DATA; AUTOMATIC; TELLER; MACHINE; RETURN; ENCRYPTION; USER; AUTHORISE; USER; COMMAND

Derwent Class: T05; W01

International Patent Class (Main): H04K-001/00; H04N-001/413

International Patent Class (Additional): H04L-009/00

File Segment: EPI

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File 348:EUROPEAN PATENTS 1978-2003/Nov W03
          (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20031120,UT=20031113
          (c) 2003 WIPO/Univentio
?ds
        Items
                 Description
Set
         6953
                 (AUTHORIZ? OR AUTHORIS? OR VALID? OR VERIF? OR APPROV?) (5N-
S1
             ) (TRANSACTION? OR PAYMENT?)
S2
                CELLPHONE? OR CELL?() PHONE OR PORTABLE() DEVICE? OR PEAD OR
             PORTABLE() ELECTRONIC() AUTHORIZATION() DEVICE? OR PDA OR FONE? -
             OR PDAS OR PERSONAL()DIGITAL()ASSISTANT?
S3
               PIN? ? OR (CHARGE OR CREDIT)()CARD? OR NUMBER? ? OR PASSWO-
             RD? OR ID OR IDENTIFICATION? OR PERSONAL()IDENTIFICATION()NUM-
S4
                AU=(WANG, Y? OR WANG Y ?)
S5
          193
                S1(S)S2
S6
          119
                S5(S)S3
S7
           73
                S6 AND IC=G06F
S8
                S7 AND IC=H04L
            6
S9
            3
                S6 AND IC=H04K
S10
            2
                S9 NOT S8
S11
                S4(S)S1
```

DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. \*\*Image available\*\* 00887532 VIRTUAL PAYMENT CARD CARTE DE PAIEMENT VIRTUELLE Patent Applicant/Assignee: SONERA SMARTTRUST LTD, Elimaenkatu 17-19, FIN-00510 Helsinki, FI, FI (Residence), FI (Nationality), (For all designated states except: US) Patent Applicant/Inventor: MCARDELL Gavin James Dean, 6 Cutbush Close, Lower Earley, Reading, Berkshire RG6 4 XA, GB, GB (Residence), GB (Nationality), (Designated only for: US) Legal Representative: PAPULA OY (agent), P.O. Box 981, (Fredrikinkatu 61 A), FIN-00101 Helsinki Patent and Priority Information (Country, Number, pate):
Patent: WO 200221767 A1 20020314 (WO 0221767) Application: WO 2001FI763 20010904 (PCT/WO FI0100763)
Priority Application: GB 200021671 20000904 (Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ EC EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM Publication Language: English Filing Language: English Fulltext Word Count: 4727 Main International Patent Class: H04L-009/32 ...International Patent Class: G06F-017/60 Fulltext Availability: Detailed Description Detailed Description ... method of the invention, before above mentioned steps a request for the payment identifica tion number is sent from the wireless communication device the request being digitally signed and/or encrypted. Said request sent from the wireless communica tion device comprises, e.g. a user identification data, an account number and/or account limit information. The wireless communication device is., @e.g. a mobil-e tele -phone or a PDA ( PDA , Personal Digital Assistant ) . In response to the request the payment identification number is sent to the wireless communication device from a payment system in a digitally signed... ...message. The message can also contain informa tion about the available credit limit and/or validity period. The payment identification number and other sensible information travels between the wireless com munication and the payment system digitally...card like number which can be used just like credit card is used, although the payment identification number 's validity has certain restrictions. The wireless communi cation de-vice MS is preferably a mobile phone or a

8/3,K/1

(Item 1 from file: 349)

5 PDA . The digitally signed and/or encrypted request is transferred to the payment system BANK in...

8/3,K/2 (Item 2 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00886126

METHOD AND SYSTEM FOR AUTHENTICATING E-COMMERCE TRANSACTION D'AUTHENTIFICATION DE TRANSACTIONS DE COMMERCE PROCEDE ET SYSTEME ELECTRONIQUE

Patent Applicant/Assignee:

MYESPACE NET PRIVATE LIMITED, Greams Dugar, 3rd Floor, 149 Greams Road, Chennai 600 006, Tamil Nadu, IN, IN (Residence), IN (Nationality) Inventor(s):

CHANDRAMOULI Balaraman, Greams Dugar, 3rd Floor, 149 Greams Road, Chennai 600 006, Tamil Nadu, IN,

Legal Representative:

DEPENNING R G (et al) (agent), Depenning & Depenning, 31 South Bank Road, Chennai 600028, IN,

Patent and Priority Information (Country, Number, Date):

WO 200219614 A1 20020307 (WO 0219614) Patent:

Application: WO 2001IN102 20010521 (PCT/WO IN0100102)
Priority Application: US 2000650433 20000829 O 9 9
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

5:-

37

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(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 8743

Main International Patent Class: H04L-009/32 International Patent Class: H04L-029/06 ...

#### ... G06F-017/60

Fulltext Availability: Detailed Description

#### Detailed Description

... main E-commerce transaction channel, generally through a web browser. The registry generates a transaction identification upon receiving, the user's request. The transaction identification number is sent to the user via the main E-commerce transaction
channel. The registry initiates...

...commerce transaction

channel. Thereafter the user is prompted to enter an authentication code and the transaction identification number for verifying user identity. A cell phone , a mobile telephone or a land phone may be used to receive the telephone call...

8/3, K/3(Item 3 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00879194 \*\*Image available\*\*

PERSON-CENTRIC ACCOUNT-BASED DIGITAL SIGNATURE SYSTEM SYSTEME DE SIGNATURE NUMERIQUE FONDE SUR UN COMPTE CENTRE SUR UNE PERSONNE Patent Applicant/Assignee:

FIRST DATA CORPORATION, Suite 330K, 6200 South Quebec Street, Greenwood Village, CO 80111, US, US (Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

WHEELER Lynn Henry, One Canon Drive, Greenwood Village, CO 80111, US, US (Residence), US (Nationality), (Designated only for: US)

WHEELER Anne M, One Canon Drive, Greenwood Village, CO 80111, US, US (Residence), US (Nationality), (Designated only for: US)

Legal Representative:

TILLMAN Chad D (agent), Morris, Manning & Martin, LLP, Suite 1125, 6000 Fairview Road, Charlotte, NC 28219, US,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200213455 Al 20020214 (WO 0213455)
Application: WO 2001US41587 20010806 (PCT/WO US0141587)
Priority Application: US 2000223076 20000804 OV Designated States: AE AG AL AM AT AU AZ BA BB BG BN BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English

Fulltext Word Count: 49174

Main International Patent Class: H04L-009/30 International Patent Class: G06F-017/30 ...

... G06F-017/60

Fulltext Availability: Detailed Description

#### Detailed Description

... an account holder 1402 comprising a person possesses a device in the phone 1450. The cell phone 1450 securely protects form of a **cell** therein a private key of a public-private key pair. The cell phone 1450 includes a display screen 1452 and a **number** pad 1456. Further, the phone 1450 has been suitably equipped for wireless voice and data communications over a wireless communications network 1408. The phone 1450 is associated with a bill payment account (which may include one or more checking accounts, credit card accounts, etc.) maintained with an account authority represented by a bill payment service 1412, which is authorized to pay bills to third parties on behalf of the account holder 1402 and which accounts, account balances for each such payment account, authorized credit card number (s), available credit, if any, with the bill payment service 1412, current statement, current status report, list of payees registered by the account holder 1402, customer account number and billing address for each registered payee, and current billing infori-nation for each registered...

...account holder 1402 includes the public key corresponding to the private key retained within the **cell phone** 1450. The device profile information 1570 includes information specific to the cell 1450.

As stated previously, an EC from the account holder 1402 to the bill payment...

8/3,K/4 (Item 4 from file: 349) DIALOG(R) File 349: PCT FULLTEXT

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\*\*Image available\*\* 00824204 ELECTRONIC TRANSACTION SYSTEM SYSTEME DE TRANSACTION ELECTRONIQUE

Patent Applicant/Assignee:

RANIT T S -TECHNICAL SERVICES LTD, P.O. Box 13225, 61132 Tel Aviv, IL, IL (Residence), IL (Nationality), (For all designated states except: US) Patent Applicant/Inventor:

TEL-VERED Benjamin, Hankin Street 3, 62506 Tel Aviv, IL, IL (Residence), IL (Nationality), (Designated only for: US)

Legal Representative:

JEREMY M BEN-DAVID & CO LTD (agent), Har Hotzvim Hi-Tech Park, P.O. Box 45087, 91450 Jerusalem, IL,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200157747 A1 20010809 (WO 0157747)

Application: WO 2001 UL102 20010201 (PCT/WO IL0100102)
Priority Application: IL 134354 20000203
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

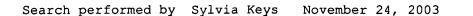
Publication Language: English

Filing Language: English Fulltext Word Count: 4148

Main International Patent Class: G06F-017/60 ... International Patent Class: HO4L-009/00 Fulltext Availability: Claims

### Claim

- ... method shown in the flow charts in Figures 2 and 3 are indicated by reference numbers in parenthesis, while parts of the system shown in Figure I are followed by inline reference numbers . In accordance with the present invention, after customer 14 has selected an item or items...
- ...standard credit transaction (22). Customer 14 then uses cellular telephone 142 to call the telephone number of vendor 12 (23) (31) and enters a predetermined code, via the keypad of cellular telephone 142 to identify the call as a transaction call, as well as a password or personal identification number (PfN) for security and verification purposes. The cellular telephone service provider 16 system detects the transaction code (32) and validates cellular telephone 142 of customer 14 by verifying that the PIN entered is the correct one for the customer's cellular phone number (34). Transaction calls for which customer validation fails are simply not put through (35), i.e. connected, while calls without the transaction...
- ...also associated with cash register 122 via both a physical connection and a cash register identification code to allow transactions and charges only from an authorized cash register 122 (37). If the cash register identification code does not match that authorized for processing module 125 of telephone interface device 124...
- ...be processed (38). Alternatively, customer 14 enters, via cellular telephone 142 keypad, the cash register identification code for cash register 122 whereby the selected items are being purchased, and processing module...
- ...device 124 may be associated with a plurality of cash registers, and the cash register identification codes allow proper accounting of



transactions performed on different cash registers. Once communication is established...

- ...enters the transaction sum when making the call, together with the transaction code and the PIN , and, in the event of authorization , the transaction sum is passed through directly to telephone interface device 124. At the same time, the...
- ...with the transaction data entered via cellular telephone 142 (26). If the sums for the transaction match, the transaction is authorized Alternatively, additional transaction data may be compared and checked. Customer 14 may also be prompted to confirm the transaction via cellular telephone 142. Telephone interface device 124 sends the authorized transaction amount and other details of the transaction as needed to communications service provider 16, which bills or debits the telephone account of customer 14 by an amount equal to the transaction
  - (27) and authorizes credit of an amount equal to the transaction sum to a presefected account 128 designated...
- ...and debiting multiple telephone service providers for calls and services provided and handled by a number of telephone service providers. Cash register 122 may also issue a printed receipt of the...
- increased business volume because of the ease of performing transactions, especially low value transactions which credit companies do not normally handle. It will further be appreciated, by persons skilled in the...

(Item 5 from file: 349) 8/3,K/5 DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv.

\*\*Image available\*\*

IDENTITY AUTHENTICATION SYSTEM AND METHOD SYSTEME ET PROCEDE D'AUTHENTIFICATION D'IDENTIFE

Patent Applicant/Inventor:

BLACK Gerald R, 30590 Southfield Road, Suite 160, Southfield, MI 48076, US, US (Residence), US (Nationality)

Patent and Priority Information (Country, Number, Date):

WO 200122351 A1 20010329 (WO 0122351) Patent:

WO 2000US19652 20/000718 (PCT/WO US0019652)

Application: Priority Application: US 99154590 19990917; US 99163433 19991103; US

2000177390 20000120; US 2000490687 \$\mu0000124; US 2000535411 20000324; US 2000207892 20000525

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO:RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US/UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR/GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL \$Z TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ/TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 15766

...International Patent Class: G06F-009/06 ...

... HO4L-009/00

Fulltext Availability

Claims

Claim

... 11 November 1999, U.S.

account, the amount is debited from the account, and the transaction is approved. The stylus enables the conversion at PO5 terminals when used to authenticate

signatures. A cardholder can transfer funds into a new account at a PO5 terminal by use of a **credit card** at a POS terminal by using the stylus of the present invention. The cardholder swipes...

...the stylus of the present invention. The prints are captured and the cardholder advises the **credit card** financial institution of the amount to be transferred. Account information is exchanged and the card...

...using

the stylus. The applicant provides the financial institution with basic information; name, address, phone number, and signature. The ...the following

terms are defined as set forth below:

"Biometrics" refers to a method of identification of a person based on personal physiological or behavioral characteristics. This approach reduces

the problem of identification to the problem of identifying physical characteristics of the person. The characteristics are either a...

...or her

behavioral characteristics (e.g. -- voice and signature). The primary advantage of such an identification method over the methods of identification

utilizing "something that you possesses or "something that you know" approach is that a biometrics...

...of related activities

administered by a centralized driver. For a more complete understanding of the **identification** authentication system and method of the present invention, reference is made to the following detailed...intended as a definition of the limits of the invention. Throughout the description, like reference **numbers** refer to the same component throughout the several views.

BRIEF DESCRIPTION OF THE DRAWINGS...another preferred embodiment of a simplified process flow path for identity authentication using the biometric identification system of the

present invention;

FIGURE 12A and 12B disclose a first preferred embodiment...and primarily for purposes of illustration, include signature authentication at P05 terminals, penbased computers user identification, and to provide improved convenience to guests within various controlled environments. Positioned at the center of the system is a stylus 15 with any of a number of biometric properties or their combination or with one or more metric sensors, while the...

- ...user supplying additional information during each request for event access (i.e. printed name, phone number, social security number). See for example U.S. Patent No. 5,805,719 (Pare, Jr., et. at.). 15debit, ATM, check, driver's license, identification card), a stylus cap, a stylus grip a stylus insert 50 (as herein described), a...
- ...a regional site to minimize privacy concerns. Preferably, the processing occurs within the pen, an **identification** card, a smart card, or within a processor at the site of the transaction. In...

8/3,K/6 (Item 6 from file: 349) DIALOG(R)File 349:PCT FULLTEXT Designated States: AE AG AL AM AT AU AZ BA BB/BG BR BY BZ CA CH CN CR CU CZ DE DK DZ EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ/PL PT RO RU SD SE SG SI SK SL

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 149954

Main International Patent Class: / H04L-029/06 International Patent Class: G06F-017/22 ...

#### ... H04L-029/12

Fulltext Availability: Claims

Claim

... framework makes it very difficult to protect implemented components from subsequent development. Developers must then verify previously tested components as they incrementally add functionality to the system. Automated regression testing can. . Sphase to descriptions of classes in the construction phase. UML compliant CASE tools provide a number of the deliverables that most object methodologies uses, however, there are almost always some deliverables...use small teams, enterprise applications are large and often require in the aggregate a large number of developers. Development architectures must be constructed in such a way as to support sometimes...components. An abstraction such as this forms the basis for distributing batch workloads in a number of useful ways. It also enhances the capability of the architecture to support evolutionary change...the DBMS. Usually you would construct this cache as a hash table keyed by object ID , and use a LRU policy to keep the cache size manageable. Expect degraded performance if \...

...loading time. Also, look at ways to do aggregate loads based on some unique object ID . For example, if you have collection-valued sub-components, insert the object ID of the enclosing object in the sub-object tables and do aggregate loads in code...of a pipe is based on the CORBA Event Channel object, which can connect any number of Push/Pull Suppliers to any number of Push/Pull Consumers.

Multithreaded Pipes. These pipes route data to one of several...Java type, for most attributes. This includes, for example, an account balance

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10/3, K/1
                 (Item 1 from file: 349)
 DIALOG(R) File 349: PCT FULLTEXT
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              **Image available**
 00566671
ELECTRONIC PAYMENT SYSTEM UTILIZING INTERMEDIARY ACCOUNT
SYSTEME DE PAIEMENT ELECTRONIQUE AVEC COMPTE INTERMEDIAIRE
Patent Applicant/Assignee:
   PRENET CORPORATION,
 Inventor(s):
   RESNICK David,
   CALLANAN Matt J,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200030044 A2 20000525 (WO 0030044)
Application: WO 99US27407 19991117 (PCT/WO US9927407)
Priority Application: US 98108762 19981117; US 99141994 19990701
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
  DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
  TM TR TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT
   SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 6244
International Patent Class:
                                  HO4K-001/00 ...
Fulltext Availability:
  Detailed Description
Detailed Description
... processor. The payment system identifies the customer, the customer
  platform, and the end-user account number based on the payment
  account number .
  2. Account validation . Account validation is a transaction verify that an end-user account number (e.g. a cell phone
  ) exists in the customer database. This transaction is performed when the
  end-user account number is being associated with the payment system
   (intermediary) account number . This transaction can be managed by
  either an interactive voice response (IVR) application that is...
 10/3,K/2
                 (Item 2 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
00434907
             **Image available**
PORTABLE ELECTRONIC AUTHORIZATION DEVICES AND METHODS THEREFOR
                 D'AUTORISATION
DISPOSITIFS
                                      ELECTRONIQUES PORTABLES ET
                                                                               PROCEDES
     CORRESPONDANTS
Patent Applicant/Assignee:
  WANG Ynjiun,
Inventor(s):
  WANG Ynjiun,
Patent and Priority Information (Country, Number, Date):
                           (WO 9825371 A) 19980611
  Patent:
  Application: WO 97US23125219971204
Priority Application: US 96759535 19961204
                                                        &PCT/WO US9723125)
Designated States: AL AM AT AU AZ BA BB BC BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK
  MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN
  YU ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK
  ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN
```

Publication Language: English Fulltext Word Count: 10852

• Main International Patent Class: H04K-001/00 Fulltext Availability:

Detailed Description Claims

#### Detailed Description

- ... With reference to Fig. 2, requesting device 202 may initiate a transaction approval process with **PEAD** 200 by transmitting to **PEAD** 200, via communication port 204, a transaction request pertaining to a proposed transaction. Requesting device...
- ...a certain amount of money. The transaction request itself may include, for example, the transaction ID, the merchant's name, the merchant's ID, the time of the proposed purchase, and the like. In one embodiment, the transaction request...
- ...for enhanced security but this is not required. Data pertaining to the proposed transaction reaches **PEAD** 200 via path 206 in Fig. 2.

Port 204 may represent an infrared port to...

- ...the user may then signify his approval by activating a switch 2 1 0 on PEAD 200, which causes an approval message to be created with the user's identification data, encrypted and transmitted back to requesting device 202 via path 212. If the transaction is not approved, the user may simply do nothing and let the transaction request times out after an elapsed time-or may activate another switch on PEAD 200 (not shown in Fig. 1), which causes a reject message, either encrypted or nonencrypted...
- ...present invention employs the circuitries within the portable electronic authorization device (PEAD) to perform the **approval** and encryption of the **transaction approval** data within the **PEAD** itself. In contrast, prior art data cards are essentially passive devices. For example, prior art...
- ...magnetic stripe for storing account infori-nation and do not have any facility to perform approval and/or encryption of the transaction approval data. While smart cards or IC cards, which are currently being developed, may contain electronic...
- ...their implementation still requires a reader associated with the requesting device to read out the identification data and/or user's private key in order for the requesting device to perform...transaction approvals to occur within PEAD 200. The fact that transaction approvals occur entirely within PEAD 200 provides many advantages. By way of example, this feature eliminates the need to have, in one embodiment, the identification data and/or the user's private key in the requesting device. The fact that transaction approvals occur entirely within PEAD 200 (using the user identification data and/or the user's private encryption key that are always kept secure within PEAD 200) substantially enhances the confidentiality of the user identification data and the user's private key, as well as the integrity of the transaction approval process.

Since approval occurs entirely within PEAD 200, the user identification data that is employed to authenticate transactions may be more complicated and elaborate to ensure greater security. By way of example, the user identification data may be more elaborate than a simple password and may include any of the user's name, his birth date, his social security number, or other unique biometrics or unique identifying data such as fingerprint, DNA coding sequence, voice print, or the like. In contrast, prior art authentication techniques limit the user identification data to simple patterns, e.g., simple password of few characters, that are easily memorized by the user since more